Government of
Saskatchewan

Strategy for the Development of Rural Saskatchewan

Report of the Task Force
on Rural Development
May, 1985

Saskatchewan

Strategy for the Development of Rural Saskatchewan

J.A. Brown, Chairman
J.Ö. Jónsson, Vice-Chairman
R. Archer
M. Dalidowicz
B. Drope
T. Hamlin
D. Leitch
J. Mullin
E. Parsons
D. Webster

A Government of Saskatchewan Special Task Force Report
1985

Walter Scott Building
3085 Albert Street
Regina, Canada
S4S 0B1

May 31, 1985

The Honourable Louis A. Domotor
Minister of Rural Development
Room 32, Legislative Building
Regina, Saskatchewan
S4S 0B3

Dear Mr. Domotor:

I have the honour and pleasure to submit to you the final report of the Special Task Force on Rural Development.

The valuable assistance received from each member of the Task Force and Steering Committee is hereby gratefully acknowledged.

Respectfully submitted,

JaBrown

Professor Jacob A. Brown,
Chairman,
Task Force on Rural Development

MEMBERS OF STEERING COMMITTEE

Hon. Louis A. Domotor, Chairman	Minister of Rural Development
Dr. Boyd Anderson	Farmer/Rancher
Mr. Ray Clayton	Local Government Finance Commission
Mr. George Emery	Executive Council
Mr. Dan Gilewich	Deputy Minister of Rural Development
Mr. Mitch Hnidy	Retired Educator
Dr. Dewell Linn	Urban Planner and Developer
Mr. Larry Martin	Executive Council

MEMBERS OF TASK FORCE

Professor Jake Brown, Chairman	University of Saskatchewan
Mr. Jon Orn Jonsson, Vice-Chairman	Saskatchewan Rural Development
Mrs. Rita Archer	Executive Council
Mr. Michael Dalidowicz	Sask. Tourism & Small Business
Mr. Bart Drope	Sask. Economic Development & Trade
Mr. Tom Hamlin	Saskatchewan Agriculture
Mr. Dale Leitch	Saskatchewan Urban Affairs
Mr. John Mullin	Saskatchewan Finance
Mr. Elgin Parsons	Saskatchewan Water Corporation
Mr. Dennis Webster	Saskatchewan Rural Development

TABLE OF CONTENTS

Page

Letter of Transmittal iii
Members of Steering Committee iv
Members of Task Force iv
Table of Contents v
Foreword vii
Individuals and Groups Consulted ix
Consultants xiv
List of Tables xv
List of Figures xix
List of Maps xx
Chapter I Introduction 1
II Background 5
III Institutional, Regulatory and Legislative Perspective 15

IV Economic Development

  Primary Agriculture 23
  Farm Size and Rural Development 62
  Part-time Farming 70
  Northern Agriculture 78
  Secondary Industry 83
  Service Industry 109
  Tourism and Outdoor Recreation 114
  Forestry 124
  Fish Farming 126
V Organization for Local Economic Development 133
VI Research and Development 155
VII Roads 167
VIII Land 193
IX Water 215
X Quality of Rural Life 243

XI Other Concerns

  Communications 255
  Environmental and Aesthetic Considerations 276
XII Local Government 279
XIII Expanded Mandate for the Department of Rural Development 291
XIV Conclusions and Summary of Principal Recommendations 301
XV Recommendations 307

FOREWORD

This report on the Strategy for the Development of Rural Saskatchewan reflects the ideas and knowledge of many people, with a wide range of backgrounds, experiences, education and expertise. It was prepared at the request of the Government of Saskatchewan to help provide a basis for a stronger provincial commitment and thrust for achieving a more desirable level of social and economic development in the rural areas of this province.

This should not be construed as a proposed policy or program document of the Government of Saskatchewan. Rather, it is an idea report which the Premier and his colleagues, and the people in Saskatchewan in general, can use as a basis for considering new initiatives and undertakings. The basic thrust of the Task Force was to identify development opportunities which appear to have considerable merit or potential, to identify problems or constraints which need to be overcome to develop the opportunities more fully, and then to suggest approaches, vehicles or government assistance needed to encourage and facilitate such developments.

The composition of both the Steering Committee and the Task Force provided a broad base of insights and understanding to build on. This is reflected in the affiliations of the members indicated on Page iv. This was especially important when dealing with the wide range of subjects included in the Task Force study. It was also very important for the Task Force to have such a broad base in dealing with the many briefs, presentations and other sources of information considered.

The Steering Committee made a very important contribution by providing general direction or guidance - especially in terms of opportunities, issues, constraints and possible solutions. Also, the Steering Committee commented and made suggestions on final draft versions of the many sections of this report. However, it was made clear throughout that once appointed, the Task Force operated quite independently and was not expected to produce a report which would necessarily be fully approved by the Steering Committee or the Government of Saskatchewan. **This means that this report and its contents are solely the responsibility of the Task Force.**

The main approach of the Task Force was to assign areas of responsibility to various members who produced working papers for consideration by the entire Task Force. Many sections of the report are the final product of six or seven earlier drafts. This process required at least a hundred meetings and many more informal sessions of subgroups of the Task Force.

The Task Force used many sources of information. As anticipated, there were a considerable number of reports and printed materials available for study, and an attempt was made to obtain copies of all materials which might be relevant. This was supplemented with a large number of briefs and presentations. This included submissions from local governments, many units of the provincial government, industry and individual civil servants. The Task Force organized three formal "Think Tank" sessions which provided personal insights into rural development opportunities and constraints. In addition, the Task Force met with many individuals and groups in Regina where the Task Force was domiciled. The list of individuals and groups met with (Pages x to xiii) includes only those that formally met with the Task Force as a group. There were many others with whom individual members of the Task Force consulted separately. These were considered too numerous to list in this report.

Each member of the Task Force made a unique contribution, reflecting the interests, experiences and expertise of each. The Task Force started its work early in July, 1984 and basically continued full-time until the end of March, 1985. From March 30, 1985 to May 31, 1985 the Task Force members returned to their home departments but were on stand-by in case they were needed in some aspect of preparing the final report. During April and May, I received a great deal of assistance from Task Force member Dennis Webster regarding printing arrangements, final proofreading and checking, and in developing final draft sections for summaries and conclusions.

From early July, 1984 to the end of March, 1985, the Task Force had the strong support and assistance of two excellent secretaries, Miss Connie Koza and Miss Cheryl Schalme. Cheryl continued with the Task Force until the final report was ready for the printer on May 31. She did all the final typing and assisted greatly in the proofreading and organization of the report. The valuable and dedicated assistance of both Connie and Cheryl is gratefully acknowledged. The graphics work by Mr. Warren Mullen is also much appreciated.

The Task Force appreciated the deep interest and input of the many people who assisted in developing the ideas and material for this report. The contribution and assistance of each one is hereby gratefully acknowledged.

An important source of ideas and suggestion were the 50 or so departments and Crown corporations of the Government of Saskatchewan. The deputy ministers of each department and the president or chief executive officer of all Crown corporations were invited to send a brief to the Task Force. Many responded with excellent input for consideration by the Task Force. One of the outstanding common observations in their responses related to the support of a more effective thrust by Saskatchewan in rural development. Most of the responses seemed to reflect an uneasiness and a concern that, if more positive action was not taken soon, Saskatchewan would lose a very important part of its economic base and related, potential development opportunities.

The Task Force also employed the services of nine consultants on specific, technical topics. The consultants employed are listed on Page xiv. The papers produced by these consultants provided considerable useful information and a substantial number of important ideas and suggestions. These papers were carefully considered by the Task Force and incorporated into this report as deemed relevant.

The Task Force had two excellent meetings with the Saskatchewan Association of Rural Municipalities - one with the senior officials and executive, and one with the executive, senior staff and all sub-unit SARM directors. The Task Force also had a very productive meeting with the executive of the Saskatchewan Urban Municipalities Association. It was especially gratifying to meet with these groups because they shared our concern about rural development in this province.

It became increasingly clear as this study progressed that to a large extent the economic and social well-being of Saskatchewan is dependent on a strong rural economy. To the Task Force it also became increasingly evident that rural Saskatchewan includes the many small urban centres below city status, agriculture, and the resource-based industries.

This rural sector is basic to the well-being of the 12 cities and the provincial economy as a whole.

The Task Force is pleased to have had an opportunity to work on this important aspect of Saskatchewan's future development and hopes that this report will make a significant contribution. As a minimum, it is hoped that it will provide the impetus for consideration of some new ideas and initiatives.

Respectfully submitted,

Professor J. A. Brown, Chairman

INDIVIDUALS AND GROUPS CONSULTED

Agricultural and Rural Development Caucus, Government of Saskatchewan
- John Gerich
- Hon. Lorne Hepworth
- Walter Johnson
- Ralph Katzman
- Harold Martens
- Lloyd Muller
- Sherwin Petersen

Agricultural Development Corporation of Saskatchewan
- Gordon Wells, General Manager

Richard Barnsley
Businessman, Balcarres

Hugh Bodmer
Co-ordinator, Resource Region No. 1, Carbon, Alberta

Ted Brady
Mayor, Carlyle

Bentley Crozier
Businessman, Biggar

Degelman Industries Ltd.
- Ross Giles

Frank Dietz
Farmer, Loreburn

Bill Donahue
Consultant, Edmonton

Roy Epp
Mayor, Town of Langham

David Fairlie
Director, Industrial Development, City of Saskatoon

Farm Credit Corporation Canada
- Dave Fraser, Saskatchewan Manager

Martin Ferguson
Farmer, Edgeley

Dr. Hartley Furtan
Department of Agricultural Economics
University of Saskatchewan

Stuart Garven
Harvest Foods Ltd.

Joan Halford
Farm Housewife, Indian Head

Gary Jones
Rancher

Dr. Leo Kristjanson
President, University of Saskatchewan

Roy Levee
President, Weyburn Inland Grain Terminal

Cecil McLeod
Implement Dealer, Farmer, Radville

Allen Mulhern
Farmer, Mankota

Dr. Ted Napier
Department of Agricultural Economics and Rural Sociology
Ohio State University

Julie Paquette
Businesswoman, Leask

Bill Parlee
Accountant, Herbert

Don Peer
Apiarist, Nipawin

David Pell
Wismer, Pell and Associates
Economic Planning and Human Resource Development Consultants

Prince Albert District Planning Commission
- Laurent Mougeot

Milan Puckett
Mayor of Davidson

Dr. D. Rennie
College of Agriculture, University of Saskatchewan

Rural Development Special Committee on Assessment Procedures
- Lloyd Sauder, Chairman

Rural Municipality of Corman Park No. 344
- Fred Sutter, R.M. Administrator
- Tim Stewart, Planner

Rural Municipality of Edenwold No. 158 Representatives:
- Ennis Sauer, Councillor
- David Sloan, Councillor
- B. Graham McNamee, R.M. Administrator

Saskatchewan Agriculture
- S. Kramer, Assistant Deputy Minister
- H. Zilm, Assistant Deputy Minister

Saskatchewan Association of Rural Municipalities (SARM) Executive

SARM Sub-unit Directors

Saskatchewan Committee on Rural Area Development
- Dr. Harold Baker
- John Derbowka

Saskatchewan Economic Development and Trade
- Bryce Baron, Director, Investment Development Branch
- John Saum

Saskatchewan Highways and Transportation
- Jack Sutherland, Deputy Minister

Saskatchewan Parks and Renewable Resources
- George Rathwell, Executive Director, Regional Park Program

Saskatchewan Research Council
- Jim Hutch, President

Saskatchewan Rural Development Staff

Saskatchewan Science and Technology
- Dr. Alex Guy
- Dale Botting

Saskatchewan Tourism and Small Business
- Ray Boys

Saskatchewan Urban Municipalities Association (SUMA) Executive

Saskatchewan Weekly Newspapers Association
- Winston Roth, President
- Jack Migowsky, Presentation Bureau Director

Robert Sauder
Forestry Contractor, Carrot River

Dr. Andy Schmitz
University of California, Berkeley

Linda Shaefer
Mayor, Town of Warman

Carol Teichrob
Reeve, R.M. of Corman Park No. 344

Ike Thiessen
Vice President of SARM, Aberdeen

Jerry Zentner
Businessman, Carrot River

CONSULTANTS

Mr. Fred Durrant	Engineering Consultant, Regina
Mr. R. Stuart Garven	Harvest Foods Ltd., Saskatoon
Dr. Dewell Linn	H. D. Linn Development Services Inc., Saskatoon
Mr. Murray McGillivary	Rancher, Radville
Mr. James B. Morris	Sask. Pork Producers Marketing Board, Saskatoon
Mr. Derek Murray	Derek Murray Consulting Associates Inc., Regina
Prof. Ken Rosaasen	Agricultural Economics, University of Saskatchewan, Saskatoon
Mrs. Carol Teichrob	Reeve, Rural Municipality of Corman Park No. 344, Saskatoon
Dr. Clare G. Youngs	Consultant - Oilseed, Legume & Cereal Processing, Saskatoon

LIST OF TABLES

Table	Title	Page
2.1	Incorporated Urban Municipalities and Provincial Population, Manitoba, Saskatchewan and Alberta, 1983	5
2.2	Population of Rural Municipalities, Towns and Villages, Saskatchewan, Selected Years, and Rates of Population Changes	7
2.3	Selected Population Statistics for the Prairie Provinces, B.C. and Canada	13
2.4	Personal Savings and Personal Income, Western Provinces and Canada, 1982	14
3.1	The Provincial Costs and Benefits of Import Tariffs	20
4.1	Productive Use of Farmland in Saskatchewan	29
4.2	Farm Cash Receipts for Saskatchewan Crops and Total, in Constant (1981) Dollars	30
4.3	Potential Production Increases from Saskatchewan Hayland and Pastureland	32
4.4	Value of Production of Selected Special Crops in Saskatchewan	34
4.5	Irrigated Crops in SSRID #1, 1979 and 1982	37
4.6	Estimates of Irrigation Potential in Saskatchewan (Acres)	38
4.7	Farm Cash Receipts in Saskatchewan From Livestock and Other Sources, in Constant (1981) Dollars	42
4.8	Saskatchewan Farms Reporting Cattle, 1976 and 1981	44
4.9	Total Cattle and Calves on Farms, Saskatchewan, Canada and Selected Regions, as of January 1, 1974-1981	44
4.10	Cow-Calf Production Costs, Feeder Price, and Net Margin at Saskatoon, 1970-1981	48
4.11	Slaughter and Feeder Steer Calf Average Prices, Cost of Gain, Break-even Price, and Net Margin, Saskatoon, 1975-1981	50

Table	Title	Page
4.12	Sows by Province, 1976 and 1983	55
4.13	Number of Farms, Average Size of Farms, Farm Population, Average Population Per Farm and Average Capital Per Farm, Saskatchewan, 1911-1981	64
4.14	Number of Census Farms, by Size Class of Gross Farm Sales (Constant $1975), 1966-1981, Canada	67
4.15	Cities, Towns and Villages in Saskatchewan, Selected Years from 1912 to 1985	67
4.16	Off-Farm Work by Saskatchewan Census-Farm Operators (12-month Periods) in 1970/71 and 1980/81	71
4.17	Average Number of Days of Off-Farm Work Reported by Census-Farm Operators, Saskatchewan, Selected Years, 1946 - 1981	72
4.18	Number of Establishments and Employment in Manufacturing, in Canada and the Prairie Provinces, 1982	83
4.19	Types of Manufacturing Industries Located in Rural Communities, Saskatchewan, 1984	85
4.20	Saskatchewan's Food Industry, by City and Rural Locations	94
4.21	Farm Cash Receipts vs. Food and Beverage Production, Prairie Provinces, 1982	94
4.22	Number of Food Processing Establishments, 1950-1980, Saskatchewan	96
4.23	Gross Value/Capita of Food and Beverage Industries, Prairie Provinces	97
4.24	Gross Value/Capita of Food and Beverage Industries, Urban and Rural Sectors, Prairie Provinces, Constant 1980 Dollars, in 1960, 1970 and 1980	98
4.25	Country Elevator Delivery Points and Elevator Units in Saskatchewan, 1961, 1971 and 1981	110
4.26	Distribution of Retail Sales in Saskatchewan, 1982	111

Table	Title	Page
4.27	Saskatchewan Exports by Commodity, 1980-1983	115
4.28	Major Travel Activities	122
4.29	Number of Persons Who Obtained Private Fish Farm Licences, Saskatchewan, 1970 - 1984	127
4.30	Number of Persons Who Obtained Commercial Fish Farm Licences, Saskatchewan, 1970 - 1984	128
4.31	Farmed Trout Production in Western Europe, 1978 to 1982, With Estimates for 1983	130
6.1	Estimated Returns to Agricultural Research in Single and Aggregate Commodity Studies, Selected Studies	158
6.2	Government of Saskatchewan Expenditures on R & D in All Sciences, by Department or Agency and Performer, 1984-85 (Estimated)	163
6.3	Distribution of Gross Domestic Expenditures on R & D, Canada and Provinces, by Funding Sector, 1982	164
7.1	Saskatchewan Road and Highway Network	168
7.2	Municipal Mill Rates in Lloydminster Heavy Oil Area	174
7.3	Primary Elevator Consolidation in Western Canada, 1971 - 1978	180
7.4	Estimated Road Construction Needs to Year 2005	188
7.5	Estimated Saskatchewan Road Needs, 1985 to 2005 (Based on Current Programs and Policies)	189
7.6	Estimated Maintenance Needs, 1985	190
8.1	Impact of Canadian Wheat Board Quota System on Selected Areas and Irrigated Farming	195
8.2	Comparison of Farmland Owned and Rented by Farm Operator, by Prairie Province, 1901 - 1981	199
8.3	Comparisons of Operators by Tenure Class, by Prairie Province, 1921 - 1981	200
8.4	Saskatchewan Land Tenure, 1975	204
8.5	Agricultural Land Use Types, 1975	205

Table	Title	Page
9.1	Flows and Allocations for Principal River Basins in Southern Saskatchewan	216
9.2	Yields and Quality of Southern Saskatchewan Aquifers	218
9.3	Existing Urban Water Supply and Wastewater Disposal Systems, 1980	225
9.4	Number of Communities with Water Supplies Susceptible to Drought	228
9.5	Ranges of Water Quality in Saskatchewan Municipalities Reporting, 1980	229

LIST OF FIGURES

Figure	Title	Page
4.1	Saskatchewan Gross Domestic Product at Factor Cost, by Industry, Constant Dollars	25
4.2	Saskatchewan Farmland Acreage and Use	26
4.3	Saskatchewan Farm Cash Receipts (FCR) and Realized Net Income (RNI), 1951 - 1984	26
4.4	Source of Farm Cash Receipts from Crops and Livestock, 1951 - 1983	27
4.5	Saskatchewan Hog Production, 1947 to 1984	54
4.6	Quarterly Average Hog Prices (1976 - 1984)	56
4.7	Seasonal Price Variation, 10 Year Monthly Average (1973 - 1982)	56
4.8	Location and Number of Rural Food Processors in Saskatchewan	95
8.1	Average Farmland Price Per Acre and Average Farm Size, 1911 to 1984	199

LIST OF MAPS

Map	**Title**	**Page**
1	Urban Population Change, 1961 - 1981	9
2	R.M. Population Change, 1961 - 1981	11
3	Changes in Average Farm Size, by Census Division, 1961 - 1981	65
4	Water Availability in Saskatchewan	219
5	Major Aquifers in Saskatchewan	221

CHAPTER I

INTRODUCTION

The Task Force on Rural Development was established by the Honourable Louis Domotor, Minister of Rural Development, in June, 1984. A Steering Committee, chaired by Mr. Domotor, was also established to provide general direction for the Task Force undertaking. The terms of reference for the Task Force were to examine issues, problems and opportunities confronting rural Saskatchewan, and through suggestions and recommendations on specific issues help develop a framework for rural development.

Contrary to common perception, life in rural areas is complex. Anthony M. Fuller, Director of the Rural Development Outreach Project, University of Guelph, recognized this as a positive factor in his report to the Council on Rural Development Canada in 1979:

> *"Despite the illusions of simplicity, of pastoralism and natural order, rural life is complex. Therefore, getting development of whatever type underway is also complex. It is desirable that rural development is made up of a number of activities operating at different scales, provided that they are integrated and complementary. In rural life diversity is a strength, not a weakness."*

Premier Grant Devine also recognized the complexity of the issues falling under the overall mantle of Rural Development as indicated in his statement in reply to the 1983 budget (Hansard, March 28, 1983):

> *"An expanded and emphasized Department of Rural Affairs, now to be called the Department of Rural Development, will enable us to focus on numerous areas of concern to rural residents. Communications, economic development, water problems, and education concerns will be targeted in the new department. The farming community . . . will benefit greatly from this new department."*

There is no simple, standard definition of Rural Development. However, the Task Force agreed with the Canadian Council on Rural Development (1973) that:

> *"Development should be inherently a planned process of change, both economic and social, for the benefit of the people - to widen their economic horizon as well as enrich their social well being. Economic development and social development are thus inextricably interwoven; together they constitute one single indivisible developmental process, aimed at serving fundamental human purposes."*

For the purposes of this study and report, rural was defined to include all of the rural municipalities and all of the urban municipalities up to city size. Together these municipalities account for roughly half of Saskatchewan's population.

In addition to the intensive, in-depth research by individual members, the Task Force consulted widely with individuals and organizations to seek their views on the issues and opportunities in rural Saskatchewan and to obtain their ideas on measures to stimulate rural development. The consultation process included all of the Deputy Ministers of Departments and Chief Executive Officers of Crown Corporations.

Early in the consultation process it became apparent that the prime concern about rural viability and development centred around economic opportunities. The Task Force, therefore, selectively concentrated its work on key areas where action by individuals, groups, the private sector or the various levels of government could directly or indirectly stimulate rural economic growth. Because of this emphasis and time constraints, a limited but significant effort was devoted to the analysis of quality of life issues, as reflected in the delivery of health, education, social, and cultural services to rural Saskatchewan.

One of the frustrating aspects of this study was that many of the problems and excellent suggestions for their solution have been identified earlier. There are literally hundreds of research projects, government councils, study groups and commissions that have identified the major problems facing rural North America. Many of these reports support the conclusion of the Conference on Rural Development Issues, held in Saskatoon, 1979 that:

> *"Resources of government have not been adequately supplied to communities. There is a lack of information and understanding of what is available; bureaucracy tends to make those investigating lose interest. These resources should be decentralized to the community."*

Previous studies indicate that out-migration from rural areas is one of the most serious problems to be addressed in rural development.

The Task Force concluded at the outset of its deliberations that a strong rural economy would enhance and encourage a healthy economy in the cities. In Saskatchewan particularly, the majority of economic activity which occurs in the cities is generated from the rural sector. Despite this, it appears that in the past Saskatchewan has encouraged city expansion at the expense of rural and small urban communities.

The social and economic costs associated with the redistribution of population from rural areas to cities can be enormous. Such costs were identified in 1973 by the Canadian Council on Rural Development:

> *"The large increases in population in urban centres have caused a physical growth through urban sprawl and a concentration of population through high-rise development. Increased demands for highways and services are a result of this growth; their provision increases their use and generates more demand. Similarly, the increased concentration of population generates demands for parking spaces, public transit, and other services which require large investments.*
>
> *The effects of this growth in cities have, however, been most dramatically indicated by the rise in the cost of housing, particularly land values, in the past decade in the major cities. Housing costs have now reached the point where in order to buy a house a family must have an income much higher than the average. In addition, there are innumerable other services which become essential in a city but which are not normally required in rural areas - such as recreational services, regulation of traffic and law and order maintenance.*
>
> *The costs of these urban services rise with an increasing population more than proportionately. The average cost of services becomes much higher than that which existed prior to the increase in population In all likelihood, the burden of these costs would overwhelmingly be borne by the existing residents, in part due to the higher costs of providing the new services spread over the entire population most of which were already living in the city. In addition the rural migrant normally enters the low income jobs and lives in lower valued homes and thus would pay less than the average in taxes and less than the cost for services provided for him.*
>
> *These questions of social and private costs and benefits are important in evaluating the impact of urban concentration. On the one hand, the depopulation of rural communities leaves behind a large investment in social infrastructure and community facilities which, on the other hand, must be provided at increased cost in urban areas. The social costs of stress resulting from change and urban concentration are more difficult to measure but are real nevertheless. Accounting for these total costs generated by urbanization may well change the relative value of continuing urban concentration and the development of rural areas. The magnitude of these direct and indirect costs should be the subject of extensive research."*

This report entitled "Strategy for Rural Development" is the product of about ten months of Task Force deliberations, and contains observations and recommendations for consideration by the Minister of Rural Development, the Government, and the people of Saskatchewan.

The suggestions and comments have been put forward with the understanding that there is a commitment by the Government of Saskatchewan to the principle of rural development.

The Task Force believes the implementation of these recommendations would provide the foundation for a new era of economic and social well-being for all of Saskatchewan.

CHAPTER II

BACKGROUND

Saskatchewan's settlement pattern and current community structure are quite unique. One outstanding feature is the very large number of fairly distinct and separate communities or settlements in the province. Although many of the small hamlets and very small villages are in a state of decline, the province still has roughly 1,200 communities. However, less than half (506) of these communities are incorporated centres. The rest are settlements or hamlets that were organized in rural municipalities. In the western Canadian context, Saskatchewan has almost three times as many incorporated municipalities as Manitoba, a province with a similar population, and almost twice the number of urban municipalities as Alberta, which has a total population more than double that of Saskatchewan.

Table 2.1

INCORPORATED URBAN MUNICIPALITIES AND PROVINCIAL POPULATION MANITOBA, SASKATCHEWAN AND ALBERTA, 1983

	Manitoba	**Saskatchewan**	**Alberta**
Number of Urban Municipalities	180	506*	265
Provincial Population	1,046,300	992,000	2,353,800

* This does not include the 25 northern towns, villages and hamlets.

Sources: Statistics Canada Publication No. 17-X-501.
Saskatchewan Municipal Directory, 1985.
Derek Murray Consulting and Associates.

Compared to its prairie neighbours, Saskatchewan is unique. Only 31 of Saskatchewan's urban municipalities have a population of over 2,000. This includes 12 cities and 19 towns. The average population of the 475 communities with 2,000 or less in population is 425. As a result, Saskatchewan's community structure is characterized by a large number of very small settlements.

For the purposes of this Task Force study on rural development, the rural economy of Saskatchewan was defined to include the 299 rural municipalities and the 494 urban municipalities below 5,000 in population. This includes approximately half of the population of the province. Most of the rural municipalities, towns and villages are economically and socially quite interdependent. In most cases these small urban centres and the surrounding rural municipalities are interdependent for their well-being.

Concerns about Saskatchewan's rural community structure can be traced back to the 1930s and the devastating impact which the Great Depression had on all of Saskatchewan. At the end of the depression the rural exodus persisted. This caused increasing concern about the province's rural community structure. Following the end of World War II, rural depopulation and the rural to urban population shift continued. From the late 1950s to the present, successive provincial governments have paid increasing attention to the problems of depopulation and lack of economic opportunity in rural Saskatchewan.

The topic of rural community viability is a familiar one in Saskatchewan. There have been numerous major studies that have examined various aspects of rural community viability in this province, and various program initiatives dealing specifically with rural communities have been undertaken over the years. There have been some attempts at rural industrialization through economic development programs, and virtually every government department has a "rural conscience" when considering new program initiatives. Virtually every new government and every new budget has addressed some of the concerns and opportunities of Saskatchewan's rural communities. However, the concern over the viability of Saskatchewan's rural community structure persists.

Often the viability of a community is discussed in economic terms. A community with a manufacturing plant may be judged to be more viable than one without. A community with a hospital and regional high school is generally seen to be more viable than one without. A community without any commercial services or economic entity may not be viable. There are many Saskatchewan communities that have virtually no commercial services - are they viable? If one posed the observation that due to a community's lack of commercial services, the community was not viable it would likely lead to a heated debate.

It is clear that some communities without commercial services can be viable. People living in small communities do not necessarily have to earn their income in them. Often the most significant criterion for community viability is local employment and income. However, some settlements that do not have indigenous employment resulting from commercial or local businesses are considered to be "bedroom" or "retirement" communities. Some of these are financially sound and capable of generating an assessment base to pay for municipal services, and to elect a municipal council to manage the community's affairs.

Unfortunately, not every community can hope to survive without its own economic base. When the economic base in a region is threatened or regional income declines, population growth, over a protracted period, will normally decline. Cultural, social and financial viability are important facets of community survival. Most often, though, it is economic stability that determines whether a community will remain a viable population centre. Employment and income opportunities are generally essential for sustaining a community's population.

Saskatchewan's population has changed very little since 1931 when the province had about 920,000 people. It was not until 30 years later (1961) that the province's population surpassed that level. However, the rural/urban population distribution has changed dramatically. The most dramatic change has been the enormous decline in persons living in rural municipalities. In 1931 approximately 70 percent of Saskatchewan's population were residents of rural municipalities. This has reversed during the last 50 years to the point where the province's cities, towns and villages now account for 70 percent of Saskatchewan's population and rural municipalities account for 24 percent (Indian Reservations account for less than 6 percent). Maps 1 and 2 show, within percentage ranges, the population changes that have occurred in each rural municipality, town and village between 1961 and 1981.

While the population of the rural municipalities has continued to decline, there are indications that the rate of decline is decreasing. Also, the combined population of rural Saskatchewan (including rural municipalities, towns and villages) is actually increasing slightly, as shown in Table 2.2.

Table 2.2

POPULATION OF RURAL MUNICIPALITIES, TOWNS AND VILLAGES, SASKATCHEWAN, SELECTED YEARS, AND RATES OF POPULATION CHANGES

	1971	1976	1981	% Change 1971-76	% Change 1976-81
Rural Municipalities	282,301	252,986	240,472	-10.4	-4.9
Towns and Villages	212,257	209,801	223,630	-1.2	+6.6
TOTAL	494,558	462,787	464,102	-6.4	+0.3

Source: Census Reports of Canada.

While it is too soon to conclude that the trend towards rural depopulation has been halted or reversed, the census figures given in Table 2.2 are encouraging and suggest there may be an emerging trend towards population stability in rural Saskatchewan.

Surveys taken in the USA have shown an increasing desire of many urban dwellers to return to rural areas. A similar desire in Saskatchewan may be the underlying cause for the levelling off in rural population in this province.

Some of the traditional employment opportunities in rural Saskatchewan are on the decline. Increased mechanization in the agricultural sector has reduced the demand for farm labour, and improved transportation and communication facilities, combined with the reduced rural population, have reduced employment opportunities in many small urban centres. A major problem in Saskatchewan is the continued dependency on the export of raw materials, both agricultural and mineral, with little industrial activity developed to process these base materials into consumable commodities.

The province has a tremendous resource base - 40 percent of Canada's agricultural land, one of the world's largest known supplies of both potash and uranium, vast amounts of fresh water, millions of acres of timber, and abundant coal, natural gas and crude oil deposits. Despite this rich resource base, the province has so far not succeeded in combining these resources with the necessary human resources and capital to develop a more industrialized economy. Also, Saskatchewan's dependence on export markets has resulted in extreme vulnerability to outside forces, as the recent downturn in agriculture has exemplified.

Saskatchewan's lack of industrial growth has had at least one benefit - the province does not have a dominant urban centre controlling its economy, as does Manitoba. Saskatchewan has 12 cities, geographically well located to enable them to provide a reasonable level of services to the rural communities they serve. Much of the province's economic development has been centred in these cities, providing a balanced level of employment opportunities to the entire province.

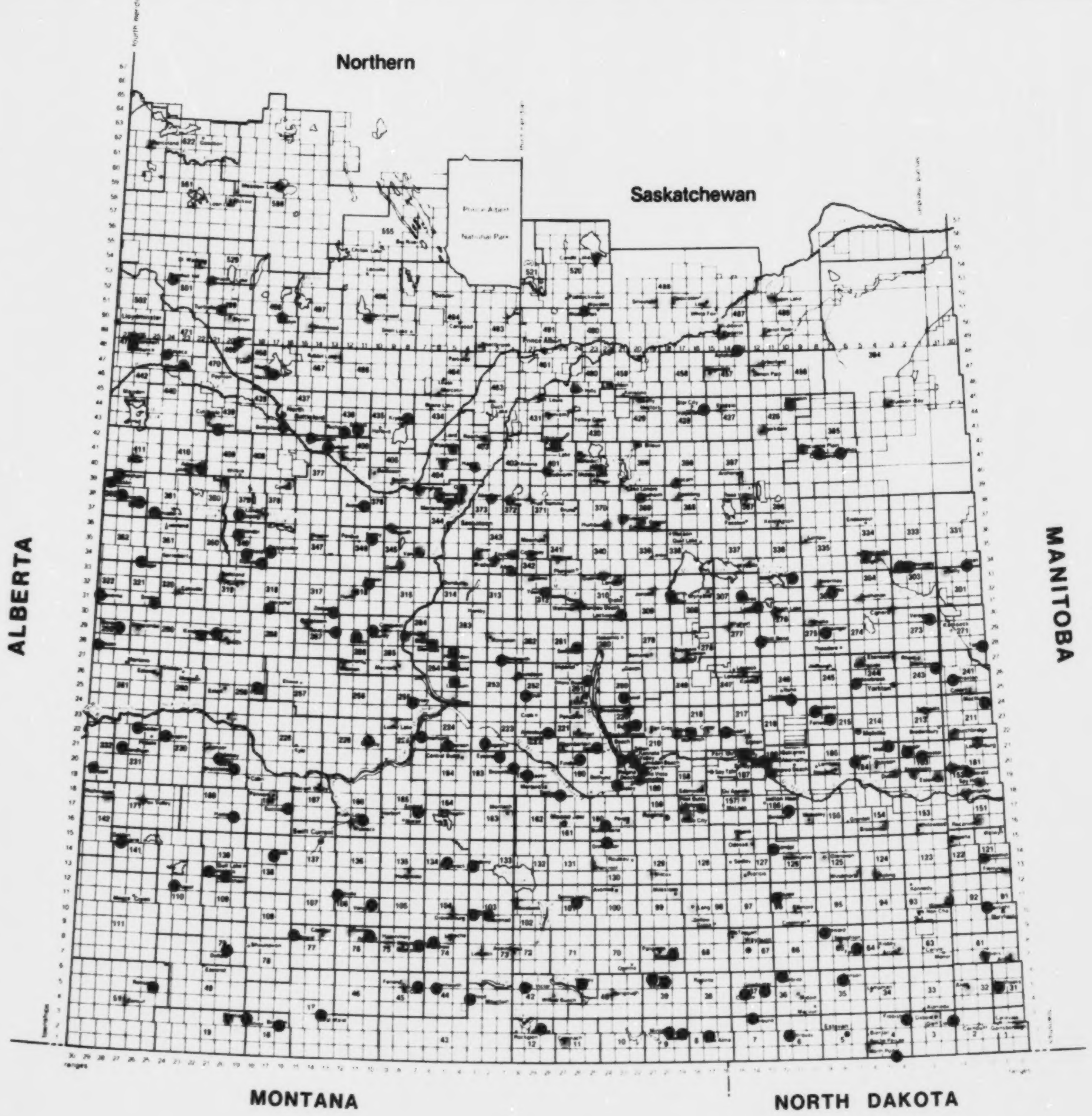
Saskatchewan's human resource base has perhaps the greatest potential for further development. Since the Great Depression the province has exported people and technology to the neighbouring provinces. Table 2.3 indicates the results of the active labour force seeking employment beyond Saskatchewan's boundaries.

The dependency ratios shown in Table 2.3 indicate that Saskatchewan has a much greater proportion of people in the less productive categories than have Manitoba, Alberta and B.C. This means that the burden on the main working portion of the population is considerably greater in Saskatchewan. This is in part a result of the exodus in the past of young people who obtained employment outside of this province.

SOUTHERN

SASKATCHEWAN

Map 1


Northern
Saskatchewan
ALBERTA
MANITOBA
MONTANA
NORTH DAKOTA

URBAN POPULATION CHANGE 1961-1981

Legend

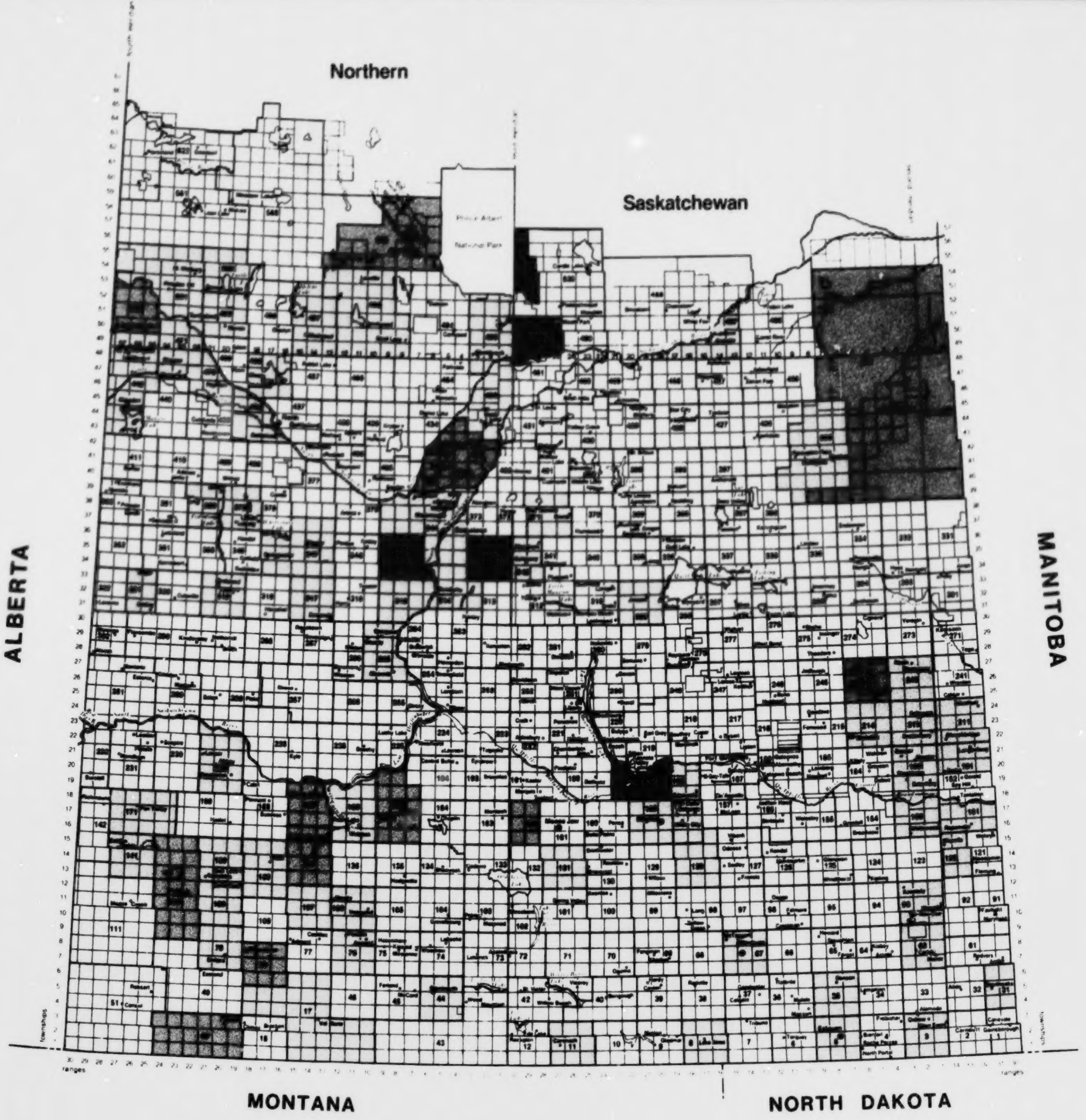
- ● Greater than +30%
- +11% to +30%
- • +10% to -10%
- -11% to -30%
- ● Greater than -30%

Cities excluded from map.

Saskatchewan
Rural
Development
Task Force 1984

SOUTHERN
SASKATCHEWAN

Map 2


Northern
Saskatchewan
Prince Albert National Park
ALBERTA
MANITOBA
MONTANA
NORTH DAKOTA
townships
ranges

R.M. POPULATION CHANGE 1961-1981

Legend

- ■ Greater than +30%
- ■ +11% to +30%
- ▨ +10% to -10%
- □ -11% to -30%
- □ Greater than -30%

Saskatchewan
Rural
Development
Task Force 1984

Table 2.3

SELECTED POPULATION STATISTICS FOR THE PRAIRIE PROVINCES, B.C. AND CANADA

Item	**Man.**	**Sask.**	**Alta.**	**B.C.**	**Canada**
Birth Rate/1000, 1982	15.6	18.1	19.4	15.3	15.1
Population under 15 years, 1983	22.8%	24.4%	23.6%	20.9%	21.9%
Population 15 - 64 years, 1983	65.0%	63.3%	69.0%	67.8%	68.0%
Population 65 years or over, 1983	12.1%	12.3%	7.4%	11.3%	10.0%
Dependency Ratio*	53.8%	58.1%	44.9%	47.5%	47.0%

* Dependency ratio is the ratio of the population aged 0-14 plus the population aged 65 years and over, to the population aged 15-64.

Source: Statistics Canada.

Table 2.4 shows that the rate of personal savings in Saskatchewan is much higher than in the other western provinces or in Canada as a whole. These large deposits of savings represent capital which is available for investing in Saskatchewan or elsewhere. The table suggests that in the other provinces there is a much greater tendency to invest than to build savings accounts. This probably reflects greater investment opportunities and economic activities in the other provinces. Whatever the reason, there is obviously a major resource of capital available for more economic development in Saskatchewan. This is very important for consideration of potential organizations such as major development corporations, community development corporations, or other new business ventures.

Table 2.4

PERSONAL SAVINGS AND PERSONAL INCOME, WESTERN PROVINCES AND CANADA, 1982

	Man.	**Sask.**	**Alta.**	**B.C.**	**Canada**
Per capita personal income	11,987	12,372	14,025	13,811	12,839
Personal Savings					
% of personal income	15.3	19.0	5.3	7.7	12.4
$ per capita	1,831	2,346	750	1,065	1,593

Source: Statistics Canada.

A major challenge for Saskatchewan is to find means to combine the large pool of available capital with the provincial resource base to create employment and investment opportunities which will result in a higher level of social and economic development in the province.

CHAPTER III

INSTITUTIONAL, REGULATORY AND LEGISLATIVE PERSPECTIVE

As the Task Force proceeded with this study, it became increasingly aware of several federal and provincial policies, programs and institutions which have had and will likely continue to have a major, direct impact on the economic development of Saskatchewan. Since some of the effects appear clearly to have been adverse or negative, it was considered important to identify and analyse them at least briefly in this report. Rural development and economic development of the province as a whole require federal and provincial legislation and regulations, and related institutions which are supportive and do not jeopardize our opportunities for development.

All of the topics discussed in this chapter should be the subject of further in-depth study and analysis, because they are so important to the economic well-being and further development of Saskatchewan. This is especially evident in the chapters on Economic Development, Research, Roads, and Land.

Transportation Policies

National policies affecting transportation have been the subject of ongoing debate in Saskatchewan for many years, because transportation is so basic to the well-being of a province highly dependent on an adequate national system.

As discussed in the chapter on Roads, Saskatchewan has yet to formulate an overall strategy for the rationalization of the grain handling system and the required ground transportation system. Many questions remain unanswered in this context and should be researched further to determine a basis for a new federal-provincial agreement on transportation. For example:

1. Is it desirable or reasonable for the federal government to continue to spend millions of dollars to upgrade branch rail lines which may not provide a significant improvement in the grain handling and collection capability of the overall system? Basic is the need to develop a branch line system, together with an adequate network of highways and main market roads, which would meet the needs of a modern grain handling system. National transportation policies should facilitate the rationalization of the rail and grain elevator systems which is already underway.

2. Is it reasonable for the costs of transportation to be shifted from the railways and the federal government to road and highway programs supported by local ratepayers and the provincial government when rail branch lines are abandoned? In considering

the best use of the funds available for the development of a more adequate transportation system, wouldn't it be reasonable to divert more funds to roads and highways?

3. Is it in the best interest of western grain producers to ship feed grain to British Columbia and eastern Canada under federal subsidy if it damages a potential large local market for these products? Related is the question of the impact on western livestock producers: is it reasonable to continue policies which enable producers in eastern Canada to finish feeder cattle more economically than the western farmers who produce much of the grain used and a substantial proportion of the feeder cattle fed in eastern Canada?

4. Would Saskatchewan grain producers benefit from greater use of the Port of Churchill, or are there other alternatives such as through the USA which could reduce grain transportation costs?

5. Who should be the recipient(s) of Crow rate benefit payments? If paid to the railways, will this result in the maintenance of some branch lines no longer needed, and will it continue to adversely affect the agricultural sector by maintaining the current heavy emphasis on grain exports and discouraging diversification? If paid only to producers, will the railways be allowed to restrict service to only the profitable lines? Or, should a portion of the Crow rate benefit be used to upgrade the highway and road system which will be needed to replace the branch lines lost? The possibility and merits of paying a share of the payments to each of the three major potential recipients identified are discussed in Chapter IV.

The answers to some of these questions are obvious and require corrective action. Others are in urgent need of answers.

The Task Force was also made aware of inequities in transportation subsidies for manufactured products moving within Canada. Finished goods appear to move into the prairie basin at a lower tariff than manufactured goods moving from the prairies to eastern markets. This makes it very difficult for Saskatchewan to establish a manufacturing industry in a Canadian market. The current system appears to be preventing competition from developing in accordance with economic market forces.

National Feed Grain Policies

National policies for feed grain movement and subsidization appear to have resulted in adverse effects for the livestock industry in western Canada. Because these policies have been viewed favourably by grain producers and negatively by livestock producers, they have resulted in an unfortunate strong division of opinion between these two major sectors. This has in part been responsible for a poorly developed local feed grain market in western Canada. This, in turn, has discouraged the development of strong livestock enterprises which on many farms and ranches would be excellent supplements to grain production.

The recent Canada Grains Council study (March 1985) states conclusively that:

> *" . . . the livestock production sector in western Canada is a much larger economic component of the western agricultural industry than many people may have been aware of; that western feed users are by far the largest and most stable outlet for feed grains produced in western Canada; that the volume of feed grains traded commercially within the West is considerably larger than the volume of grain sold to users in eastern Canada; that the current manner of operation of grain markets in western Canada generates unnecessary and costly instability in off-Board and off-quota feed grain markets; that the statutory rail freight rate structure has resulted in significant added costs to feed users in western Canada; and that the current structure of the market, and the conditions imposed on market participants by government policy, have had a significant negative impact on the development of the livestock sector in western Canada."*

The study indicates an additional cost to western feed grain users of $424.4 million from 1974 to 1983. The Council study also states that:

> *" . . . for various reasons, the Saskatchewan feed grain-livestock sector appears to have suffered the greatest negative impact. This has significant implications for Saskatchewan with respect to resource use, cropping patterns, land values, and the overall stability of the farm sector.*
>
> *The continuation of current policies and operating practices without modification will be of serious consequence to the entire agricultural industry in the West."*

This study confirms what many Saskatchewan livestock producers have been saying for years - western feed users have been at a significant disadvantage compared to their counterparts in other areas of Canada.

The Task Force believes that the goal in Canada should be to have an integrated approach to the movement and use of feed grains. For example, the grain and livestock sectors should be assisted in a manner which would be beneficial to both. Such an approach would be of mutual benefit to both sectors.

The Task Force strongly recommends that the provincial government should ask the Government of Canada to develop a new and more equitable National Feed Grains Policy as soon as possible.

The Wheat Orientation

Many federal and provincial policies appear to be oriented strongly towards the encouragement of exporting wheat from Saskatchewan. Canadian transportation and feed grain policies favour exports of raw materials and cereal grains, especially wheat, from the prairies. The orientation is so strong, for example, that a major marketing body which handles many crops is called the Canadian Wheat Board. Similarly, the Saskatchewan Wheat Pool has many major activities in addition to handling wheat.

Much of the technological advancement in western Canada's agriculture has been oriented towards increasing the production and shipment of wheat. For Canada this has been a major source of foreign exchange. Unfortunately this emphasis appears to have had a negative effect on soil conservation and development of the livestock industry in Saskatchewan. Both of these effects are discussed more fully in the following chapter.

The Canadian Wheat Board, the Canada Grains Council and the elevator companies have all shown preferential policies toward cereal production, with an emphasis on wheat.

The Western Grain Stabilization Plan, cash advances on stored grain, quota deliveries on summerfallow acres, storage payments by the CWB to grain companies for cereals not delivered for export, the shipment of uncleaned grain to port with an allowable deduction for dockage, the weak development of prairie markets for feed grains, and the resistance of the Grain Commission to grade cleaned grain at source are all examples of policies which strongly support the production and exporting of cereals, especially wheat, and discourage value-added production in Saskatchewan.

The livestock sector in Saskatchewan has also had considerable assistance over the years. Various programs - some quite costly to the taxpayer - have been implemented for such purposes as emergency fodder supplies, feed hauling assistance, price support and stabilization plans, and breeding herd development and maintenance. However, in the view of livestock producers, such programs have not been sufficient to offset the negative effects of national policies.

For effective rural development it seems clear that Saskatchewan needs strong producing sectors in both crops and livestock. This suggests that the many supportive programs in place for crop producers should be maintained and enhanced as required, but also, that the livestock sector should be strengthened. For example, the poorly developed feed grain market in western Canada has been a major obstacle for the feeder industry in this province. In part this reflects a lack of interest or support of such a development by the CWB. It may also reflect insufficient leadership for such development by the Saskatchewan government and grain marketing agencies.

The livestock sector also appears to need assistance in achieving more technological advances - especially in areas like breed development, forage production and physical production efficiency. This suggests the need for more innovation based on supporting research. Technological advances in crop production appear to have greatly exceeded those in livestock production.

The Task Force believes that a healthier provincial economy would result if the main economic engine, agriculture, was more diversified and developed at both the primary and secondary levels. Policies, programs and institutional constraints which do not support this direction of development should be altered accordingly.

Marketing Boards and Stabilization Programs

A major problem in agriculture continues to be the volatile nature of prices for farm products - especially those in world competition. Such cyclical price/production patterns as the hog price cycle, the cattle price cycle and the potato cycle are fairly well known. In addition, there are seasonal and annual cyclical effects, and periodic overriding effects resulting from climatic factors. One obvious result is an extreme vulnerability of producers to price fluctuations.

Much work has been done on how to cope with price fluctuations in agriculture. However, there is still a wide range of opinions on how best to proceed, and clearly the answers vary for different products and different markets.

A wide range of marketing agencies, supply control boards and stabilization programs has evolved during the last several decades in attempts to stabilize farm incomes by regulating or stabilizing commodity prices. Many countries have used such approaches.

It has been successfully argued for quite a number of farm products that marketing controls or agencies provide the stability needed to ensure continuation of the agricultural industry related to such products. At the same time, it has been argued and demonstrated that some supply management and production subsidies result in higher consumer prices and heavy demands on the public purse. In an area like Saskatchewan where there appear to be considerable opportunities to expand the production of products like pork and beef for export markets, it is argued that excessive supply control or marketing board restrictions would impede such developments. Supply management can also lead to production inefficiencies, and impede the entry of new producers. This is clearly an important area of provincial concern.

The Task Force urges that the in-depth study of agriculture recommended in Chapter IV include consideration of this important aspect. In such consideration, one important objective should be to protect and build on the natural advantages Saskatchewan has in competing for international markets.

Free Trade and Tariff Protection

While western Canada, and Saskatchewan in particular, make a major contribution to Canada's exports, tariff protection and non-tariff barriers do not appear to provide economic benefits in return. Table 3.1 indicates the costs and benefits to the provinces from import tariffs, based on 1983 data. It is well known that tariffs cause higher consumer costs. In 1983 the average cost of tariff protection in the form of duties (excluding the impact of non-tariff barriers which also increase consumer costs) was $132.62 per capita in Canada. The "tariff benefit" as calculated by the Canada West Foundation is the indirect subsidy to the tariff-protected manufacturing sector. Since a disproportionate share of the manufacturing sector is in Ontario and Quebec, the maritime and western provinces suffered a severe loss due to import tariffs in 1983, as shown in Table 3.1.

Table 3.1

THE PROVINCIAL COSTS AND BENEFITS OF IMPORT TARIFFS

	TOTAL CONSUMER COST[1]	TOTAL BENEFIT (Mfg. Subsidy)[2]	NET IMPACT COSTS-BENEFITS	
			Total	Per Capita
	$000s	$000s	$000s	$Actual
B.C.[3]	$ 384,046.99	$ 265,540.64	-$118,506.35	-$40.92
Alberta	311,966.89	145,246.07	- 166,720.82	- 70.88
Sask.	131,561.09	39,354.38	- 92,206.71	- 92.95
Manitoba	138,762.47	99,603.10	- 39,159.37	- 37.43
TOTAL WEST	966,337.44	549,744.19	- 416,593.25	- 57.17
Ontario	1,169,196.20	1,663,432.60	+ 494,236.40	+ 56.06
Quebec	864,019.52	924,016.53	+ 59,997.01	+ 9.21
Atlantic	300,521.61	162,894.68	- 137,626.93	- 60.74

[1] Calculated as the tariff cost of $132.62 per person times provincial population.

[2] Calculated as the manufacturing subsidy of $2,028.58 per manufacturing job times provincial manufacturing employment.

[3] Includes the Yukon and Northwest Territories.

Source: Estimates prepared by the Canada West Foundation based on Statistics Canada data for 1983.

Based on Table 3.1, it appears quite clear that the removal of trade barriers and tariff protection would have dramatic economic benefits for Saskatchewan by reversing or at least eliminating the negative impact of existing policies. This should result in lower prices for many products consumed or used as inputs for production in Saskatchewan. Also, it should provide easier access of Saskatchewan products into foreign markets, especially those in the Pacific rim and the USA.

Resulting lower costs of production and lower consumer prices should provide Saskatchewan producers with a greater competitive advantage required for successful, long-term expansion of production and exports. Manufacturing and processing industries would find Saskatchewan a more attractive location as local markets expanded and production increased.

The Task Force concluded that the development of more free trade, especially with the United States, would result in positive benefits for the long-term economic development of rural Saskatchewan.

RECOMMENDATIONS

1. The Government of Saskatchewan should undertake an in-depth review and study of the entire ground transportation system in the province, especially as it relates to the needs of a modern grain handling system and the economic development of the entire province. Emphasis should be given to developing a system that would integrate the needs of all the basic industries, including agriculture, resource extraction, lumbering, manufacturing, and tourism. The study should include consideration of how to maximize the potential benefits of the Crow benefit funds. Related recommendations in the section on Primary Agriculture and the chapter on Roads should be taken into account in this recommended review and study. These recommendations suggest strongly that the Crow benefit funds should be provided to each of the three major potential recipients identified - possibly on the basis of one-third paid to each annually.

2. The Government of Saskatchewan should work closely with the Government of Canada to develop a new and more equitable national feed grains policy.

3. The major in-depth review of the agriculture industry recommended in Chapter IV should include consideration of possible ways to reduce Saskatchewan's heavy dependence on wheat production and exports.

4. The Government of Saskatchewan should continue to press for a reduction in Canadian restrictions on trade as they relate to the well-being and further development of this province.

CHAPTER IV

ECONOMIC DEVELOPMENT

PRIMARY AGRICULTURE

Importance of Primary Agriculture

Saskatchewan developed at the outset as an agricultural province, and it is unlikely that the heavy dependence on agriculture, which still prevails, will be displaced by another industry for many decades to come. Therefore, the well-being of agriculture is very important for rural development and the economic health of Saskatchewan as a whole. Because of the importance, immensity and complexity of this industry, the Task Force concluded that the province should devote more study to the constraints and opportunities of agriculture than was possible within the scope and resources of the Task Force.

The dominance of primary agriculture in the economy of Saskatchewan is shown graphically in Figure 4.1. Agriculture is Saskatchewan's most important industry. It produces about 20 percent of the provincial gross domestic product, employs about 20 percent of the work force, and indirectly provides jobs for many more people. The state of the agricultural industry affects the entire provincial economy and the well-being of most of the population.

Figures 4.1 and 4.4 indicate that the heavy dependence of Saskatchewan on primary agriculture (especially the dominance of wheat) is the source of a major problem: economic instability and vulnerability to elements beyond the control of the Province (including climate and world market conditions). This suggests that further study of the industry should explore possible options for achieving greater stability through such possibilities as greater diversification within agriculture, more emphasis on intensification, increased livestock production, and the development of more policies and programs to cope with instability and adverse cyclical effects.

Agriculture was the primary reason for the location of most service centres in Saskatchewan. During the settlement era, the establishment of railroads and trade centres was related to the time required for a day's return trip from the farms. The 494 towns and villages were established to provide the service infrastructure for the agricultural industry. The vitality of agriculture is still very crucial to the viability of Saskatchewan's rural communities, as well as the province's 12 cities.

Farmland and Farmers

Total Saskatchewan farmland acreage increased steadily from 60 million acres in 1941 to 65.5 million acres in 1976 as indicated in Figure 4.2. Further modest increase can be expected to perhaps 66.5 million acres, exclusive of "Northern Saskatchewan".

Figure 4.2 also indicates the use of Saskatchewan farmland acreage from 1941 to 1981. In 1981, 76 percent of Saskatchewan farmland was cultivated. Of the cultivated land, 59 percent was devoted primarily to annual crop production, 7 percent was in perennial forage production, and 34 percent was in summerfallow. The total annual cropped acreage as a percent of total farmland has increased by almost 40 percent from 1941 to 1981. A similar increase has occurred in improved pasture, hayland and other improved land.

The amount of unimproved farmland has declined by about 40 percent. Annual total summerfallow acreage has generally represented about 25 percent of the total acreage. Saskatchewan is the only province in which summerfallow has trended upward. The recent decline of summerfallow acreage, as shown in data of the Canadian Wheat Board and presented later, is seen as farmer response to soil fertility and salinity concerns.

About one-half of 1 percent of all improved land in Saskatchewan is irrigated. Therefore, the dryland base can be considered as virtually equivalent to the total farmland base.

Production Economics

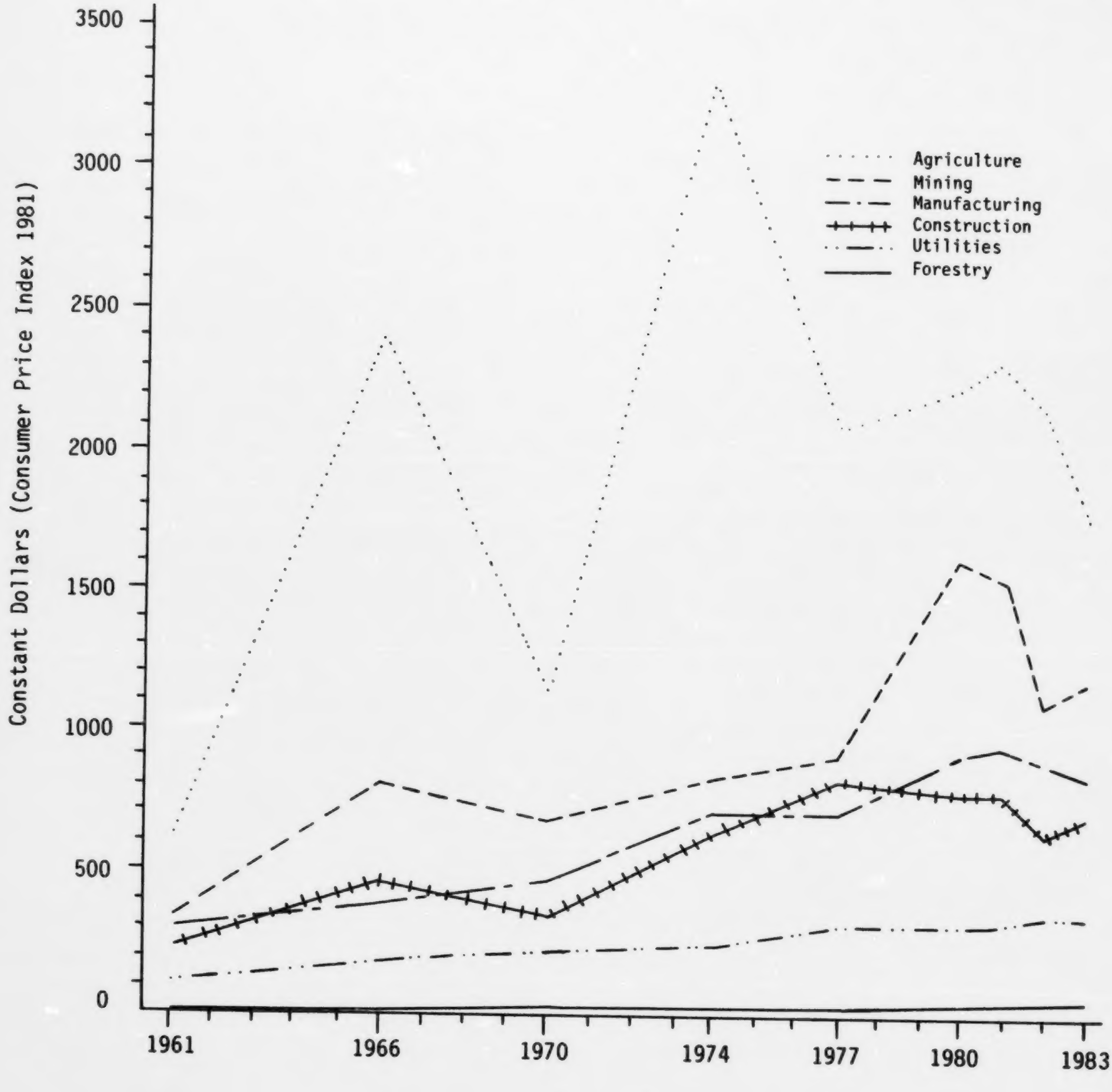
Saskatchewan farm cash receipts and net farm incomes in constant dollars, 1951-1984, are shown in Figure 4.3. Although both cash receipts and net incomes exhibit extreme variability, the trends are dissimilar. Farm cash receipts have trended upward, whereas net farm income has generally declined. In real terms, the 1984 farm cash receipts are 130 percent of the previous 15-year average (1969-1983). The 1984 realized net income is only 60 percent of the previous 15-year average.

The source of farm cash receipts from crops and livestock, in constant dollars, from 1951 to 1984, is shown in Figure 4.4. Cattle receipts dominated the total livestock receipts throughout the period. On the other hand, while wheat dominated all grain receipts, the importance of other crops has increased since 1970. Figure 4.4 demonstrates the tremendous dollar value increase of field crops, and the stagnation of the livestock sector. The crops sector has expanded from roughly twice all livestock receipts in the 1950s to about four times in the last decade. Saskatchewan's agricultural economy has become more grain dependent. Wheat normally represents 75-80 percent of all crop receipts in Saskatchewan.

Figure 4.1

SASKATCHEWAN GROSS DOMESTIC PRODUCT
AT FACTOR COST, BY INDUSTRY, CONSTANT DOLLARS
- Millions of Dollars -

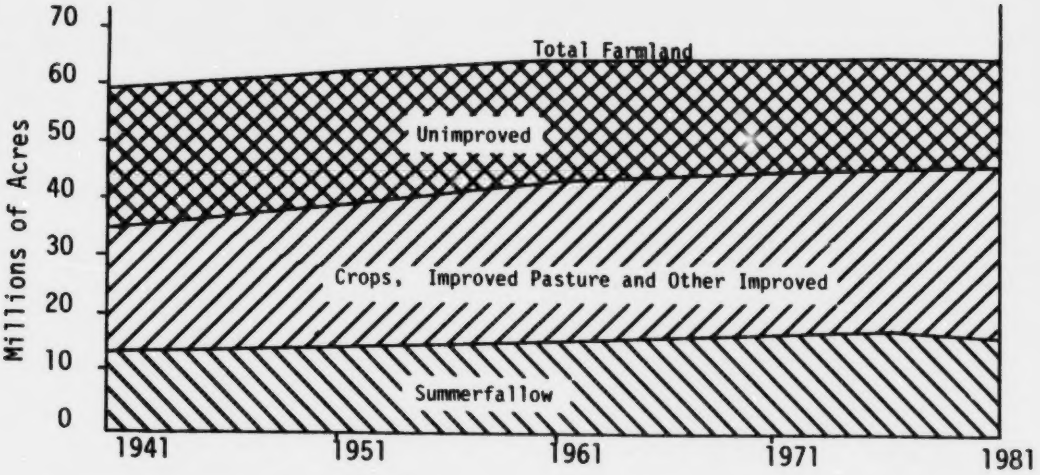
All Goods Producing Industries



Source: - Saskatchewan Bureau of Statistics
- Saskatchewan Provincial Economic Accounts
- Constant dollars were obtained by using the Consumer Price Index for 1981.

Figure 4.2

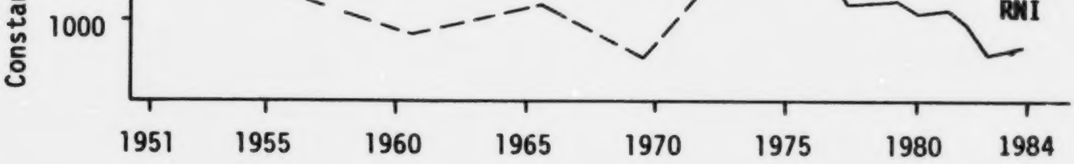
SASKATCHEWAN FARMLAND ACREAGE AND USE



Source: Statistics Canada.

Figure 4.3

SASKATCHEWAN FARM CASH RECEIPTS (FCR) AND REALIZED NET INCOME (RNI) 1951 - 1984

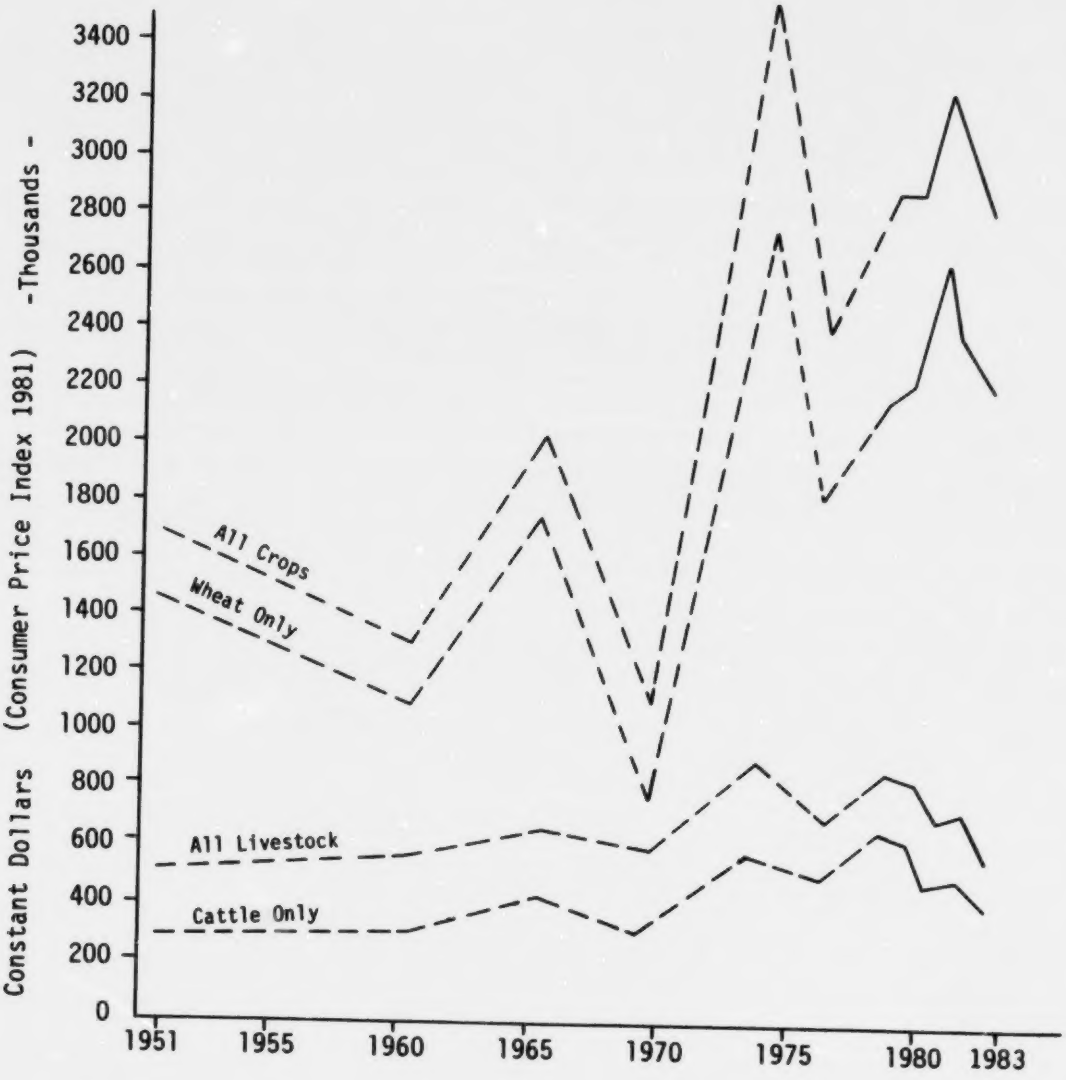


Source: Statistics Canada (1984 is estimated).

Figure 4.4

SOURCE OF FARM CASH RECEIPTS FROM CROPS AND LIVESTOCK

1951 - 1983



Source: Statistics Canada (1984 is estimated)

DRYLAND CROPS

Trends

The use of farmland in Saskatchewan, taken from Canadian Wheat Board (CWB) permit declarations of seeded acreage, is shown in Table 4.1. No differentiation is made in CWB data between dryland and irrigated crops. The acreages differ from Statistics Canada data because ranchers do not need CWB permits and the tables are compiled from permit declarations.

The differences between the wheat crops listed in Table 4.1 are very significant. Each has its own value-added potential and market. Table 4.1 indicates that during the period from 1978 to 1984:

- uncultivated land on farms decreased by about 11 percent,
- acreage in all crops increased by about 13.5 percent,
- total annual crop acreage increased almost 16.5 percent, while perennials decreased about 13 percent,
- summerfallow acreage declined by about 13 percent,
- while all wheat acreage increased by about 17.5 percent, winter wheat increased by about 1,315 percent,
- rapeseed acreage fluctuated widely, and
- the acreage in miscellaneous crops increased by about 133 percent.

The impact of each crop on farm cash receipts and how that impact has changed over time is shown in Table 4.2.

Potential

1. Grains

Several major studies in recent years (including Canada West Foundation, 1980; Advisory Committee to the Canadian Wheat Board, 1980; and Canada Grains Council, 1982) concluded that there were markets for greatly increased exports of western grains. The validity of these conclusions needs to be re-examined in light of recent developments in international grain markets. The export opportunities for Canadian hard red spring wheat appear to be under particular pressure due to the success of several countries (such as China and India) in becoming more self-sufficient in grain production, the success of the European Economic Community in entering several export markets which had traditionally been dominated by North America, and the reduced demand for CWR high grade spring wheat.

Table 4.1

PRODUCTIVE USE OF FARMLAND IN SASKATCHEWAN

(Thousands of Acres)

	1978	1979	1980	1981	1982	1983	1984
Canada Western Red Spring Wheat	14,015	14,882	15,275	16,295	17,323	18,856	16,938
Durum	3,188	2,547	2,919	3,477	2,949	2,810	3,369
Soft White Spring Wheat	1.9	2.5	3.7	4.9	9.7	18.6	21.4
Canada Western Red Winter Wheat	23.4	15.0	22.1	33.7	46.1	128.2	331.2
Utility Wheat	461	111	68	69	68	48	40
3M - HY320							75.4
ALL WHEAT	**17,689**	**17,558**	**18,288**	**19,880**	**20,396**	**21,861**	**20,775**
Oats	1,342	1,092	1,215	1,303	1,213	936	985
Barley	3,223	2,685	3,329	3,958	3,933	3,249	3,515
Rye	387	367	355	529	588	510	425
Flaxseed	427	784	431	363	532	256	700
Rapeseed/Canola	2,888	3,406	1,926	1,388	1,527	2,279	3,493
Miscellaneous Crops	291	303	428	397	497	438	677
TOTAL ANNUAL CROPS	**26,247**	**26,195**	**25,972**	**27,818**	**28,686**	**29,529**	**30,570**
Perennial Forage	3,001	2,937	2,868	2,785	2,735	2,668	2,613
TOTAL ALL CROPS	**29,248**	**29,132**	**28,840**	**30,603**	**31,421**	**32,197**	**33,183**
Summerfallow	18,368	18,745	19,142	17,801	17,401	16,873	16,037
New Breaking	179	166	167	193	180	160	139
TOTAL CULTIVATED LAND	**47,795**	**48,043**	**48,149**	**48,597**	**49,002**	**49,230**	**49,359**
Uncultivated Land & Pasture	8,968	8,767	8,610	8,501	8,355	8,207	8,002
TOTAL ACREAGE REPORTED	**56,763**	**56,810**	**56,759**	**57,098**	**57,357**	**57,437**	**57,361**

Source: Canadian Wheat Board.

Table 4.2

FARM CASH RECEIPTS FOR SASKATCHEWAN CROPS AND TOTAL, IN CONSTANT (1981) DOLLARS

	Millions of Constant (1981) Dollars									
	1951	**1961**	**1966**	**1970**	**1974**	**1977**	**1980**	**1981**	**1982**	**1983**
Wheat*	1,456	1,083	1,781	728	2,134	1,835	2,243	2,658	2,366	2,202
Barley	86	70	87	128	427	184	179	268	231	242
Oats	114	21	35	11	27	25	9	10	7	6
Rapeseed	0	27	61	128	290	278	281	234	226	225
Rye	27	7	24	11	17	14	37	28	21	27
Flax	15	70	45	69	97	51	74	39	34	39
Other Crops	15	15	24	19	71	39	40	46	42	42
TOTAL CROPS	**1,713**	**1,293**	**2,057**	**1,094**	**3,063**	**2,426**	**2,863**	**3,283**	**2,927**	**2,783**
TOTAL LIVESTOCK	**537**	**564**	**628**	**577**	**858**	**711**	**829**	**661**	**672**	**578**
Forest Products	1	1	-	-	1	1	1	1	1	1
Deficiency, Supplementary and Provincial Income Stabilization Payments	20	77	12	91	32	43	19	64	28	17
TOTAL FARM CASH RECEIPTS	**2,271**	**1,935**	**2,697**	**1,762**	**3,954**	**3,181**	**3,712**	**4,009**	**3,628**	**3,379**

* Wheat Includes Payments for Western Grain Stabilization, Crop Insurance, CWB Net Cash Advances, Deferred Grain, and Liquidation of Deferred Grain.

Source: Statistics Canada.

Some agricultural analysts predict even greater emphasis by importing nations on becoming self-sufficient in grain. China, for example, a major importer of Canadian wheat, is approaching self-sufficiency and has not reinstated a long-term purchase agreement for wheat in 1984-1985. There appears to be an urgent need for western Canada to diversify into new crops for which there are stronger export markets.

The aforementioned studies indicated that production could be increased by bringing new land into production, increasing yields, and reducing summerfallow. The potential of adding new land is limited. Yields have trended upward since the 1950s but surveys indicate there is a large gap between average yields and yields of top producers. The greatest possibility for increased production is through the reduction of summerfallow.

There are mixed opinions about the economic returns associated with reductions in summerfallow. More research and experience are needed to evaluate this approach. Present indications suggest that over the long term, increased production and net returns should result from extended or continuous cropping.

Grain marketed in Canada is tightly controlled by the Canada Grain Commission and the Canadian Wheat Board. Only licensed varieties can be marketed legally. Higher yielding varieties with independent markets can be and have been withheld because of licensing criteria. Such was the case for the recently licensed variety HY320. A recent study at the University of Saskatchewan indicated withholding HY320 may have cost Saskatchewan a minimum of $200 million per year in foregone farm cash receipts.

In barley production, Saskatchewan farmers have foregone added returns by concentrating production on malting versus feed barley varieties. About three-quarters of the barley seeded is a malting variety because of the higher price generally received for malting barley. However, less than 30 percent of the barley produced is graded and sold as malting.

Rapeseed/canola is truly a success story. Canada (Saskatchewan) has led the way in the development and production of low erucic acid rapeseed now known as canola. This superior product has opened the American market for canola and canola oil. Unfortunately, only about 10 percent of Saskatchewan rapeseed/canola is crushed in Saskatchewan. The meal from crushing is a good protein source for livestock feeds.

2. Hay and Pasture

Of the 20.2 million acres in hay and pasture in Saskatchewan, 2.4 million acres are improved and 17.8 million acres are unimproved. The improved acreage includes 1.7 million acres in tame hay and 0.7 million acres in pasture.

CWB quota systems have put pressure on producers to convert private hay and pasture land to grain production. This has resulted in segmentation and cultivation of unsuitable lands. It is estimated by Saskatchewan Agriculture that about 15 percent of the 10.7 million acres of unimproved private hay and pasture land could be upgraded to improved pasture or hay land, and that 25 percent of the unimproved public owned land could be similarly improved. The potential increase in production is estimated in Table 4.3.

Table 4.3

POTENTIAL PRODUCTION INCREASES FROM SASKATCHEWAN HAYLAND AND PASTURELAND

	Increase Possible
Hay	408,000 tonnes
Grazing Capacity	
Private Pasture	160,000 animals
Public Pasture	182,000 animals

Source: Plant Industry Branch, Saskatchewan Agriculture.

3. Horticulture

At present the commercial vegetable industry is small in Saskatchewan and usually doesn't even appear in Statistics Canada data, excepting for potatoes. Theoretically there is no reason why this situation should continue to exist - we have suitable irrigated soil, the climate is suitable for the growth of a wide range of vegetable crops, and the consumer price for fresh vegetables (particularly in the 'off season') has increased rather dramatically in the past few years. Saskatchewan fresh vegetable imports, in 1980, were estimated to exceed $62 million. There is potential for an $8 million expansion of Saskatchewan vegetable production, from $2.9 million to $10.9 million. It has been estimated that additional potential for horticultural self-sufficiency in Saskatchewan includes: seed production - $2 million; nursery production - $1.5 million; florist production - $14 million; and fruit production - $2.2 million. Large imports of horticultural products are characteristic of Canada - not just of Saskatchewan.

A major deterrent to a bigger horticulture industry in Saskatchewan is the lack of adequate storage and processing facilities. There is also the problem on some farms of uneconomic enterprises. Successful storage and processing are dependent on quality production. Field storage and processing losses can be extremely high for producers with inadequate management skills. Field to processor yields (what

Statistics Canada calls marketable yields) are usually adequate for a potential net return, even for beginning producers. Quality of product is the key to success for producers as well as processors.

Potato starch for the potash industry has also been under review and offers a potential of an additional 4,000 acres of starch potatoes in a three-year rotation.

4. Special Crops

Table 4.4 shows the dramatic growth in the production of special crops in Saskatchewan since 1972. The CWB indicates that the number of "miscellaneous" crop growers in Saskatchewan in 1984 totalled 5,067, up 41 percent from 1983. The depressed wheat and barley markets, and attractive contract and spot prices for special crops were major incentives for many producers to depart from traditional patterns. Table 4.4 provides the estimated value of production for selected special crops from 1973 to 1984.

5. Honey Production

At present, the Saskatchewan honey industry consists of about 1,800 beekeepers who collectively manage 83,000 bee colonies. Beekeeping is the main income of about 200 beekeepers. Full-time beekeepers are classified as those who maintain over 200 hives. The remaining 1,600 beekeepers are classified as hobbyists, although some of them who maintain up to 200 hives derive a large portion of their income from honey bee production. In 1980, Saskatchewan honey bee production totalled 12,500,000 pounds which returned 55¢ per pound or about $7,500,000. Much of the honey industry is concentrated north of Saskatoon.

There is some potential for increased honey production in Saskatchewan, since honey from northwestern Canada is white honey and preferred by overseas buyers. The USA is an important market, since honey production in the USA is decreasing. It is projected that honey production could increase 50 percent by 1988. There should also be opportunities for more honey processing in Saskatchewan.

Future Directions

In Canada the cost of handling and transporting grain is a major cost to the grain economy. This suggests that agricultural products which are less costly to transport to domestic or export markets should be produced where it is economical to do so. The Crow rate provided the Saskatchewan grain sector a major benefit for many years.

Table 4.4

VALUE OF PRODUCTION OF SELECTED SPECIAL CROPS IN SASKATCHEWAN

(Thousands of Dollars)

Year	Mustard	Sunflower	Lentils	Peas	Canary	Buckwheat	Fababean	Dry Beans	Total
1973	12,883	190	510	654	N/A	32	---	---	14,269
1974	25,196	72	56	530	88	N/A	110	---	26,052
1975	6,941	77	39	1,394	886	N/A	55	N/A	9,392
1976	2,252	99	97	48	1,907	N/A	15	N/A	4,418
1977	10,647	321	1,057	3,541	1,953	90	98	178	17,885
1978	9,780	1,368	3,061	3,380	1,195	164	871	74	19,893
1979	5,253	1,781	4,181	2,815	1,857	106	1,809	94	17,896
1980	12,088	1,402	8,084	3,597	6,320	N/A	1,298	12	32,801
1981	13,726	1,659	14,008	4,651	8,682	592	307	973	44,598
1982	10,135	1,604	21,769	11,757	17,354	391	209	310	63,529
1983	16,041	1,789	14,237	5,656	9,656	249	121	---	47,749
1984	23,644	1,864	10,011	7,196	8,236	209	336	---	51,496

N/A Not Available.
--- Insignificant Acreage.

Source: Saskatchewan Department of Agriculture.

The loss of the Crow rates on grain shipments will result in some major adjustments in Saskatchewan agriculture. Such adjustments, together with yield increases from new varieties, other technological advances, and cost-saving measures may improve Saskatchewan's ability to compete in international grain trade.

Diversification and intensification are potential means to increase primary production. However, it is likely that Saskatchewan agriculture will continue to rely heavily on grain and, in particular, various types of wheat as a source of income. Therefore, it is important to address the problems and opportunities of the grain industry. There is a danger that the institutional, regulatory and legislative structure surrounding this industry will make adjustments difficult. The chapter that deals with these aspects suggests that the high degree of regulation of the grain industry (including marketing, quotas, transportation rules, and grain handling procedures), together with the institutions that have become established in conjunction with these provisions, make it difficult for Canadian agriculture to adjust to new economic conditions or opportunities and to adopt new procedures or activities. The industry should be provided with sufficient freedom to enable it to become fully efficient and achieve diversification, intensification, processing, and market development as export opportunities justify and support.

Some attempts to meet challenges and capitalize on opportunities have not been very successful. In some cases commendable groundwork has not received adequate provincial support, and the desired activity occurred elsewhere. This occurred, for example, in the case of both potatoes and canola. In both cases, major companies seriously considered establishing processing facilities in Saskatchewan. However, they did not do this, but rather established several new canola plants in Alberta and one in Manitoba. Two companies established potato operations in Manitoba. It appears clear now that some locations in Saskatchewan would have provided significant advantages due to closer proximity to canola production.

Many projects would benefit from greater inputs from people in local communities. The Task Force believes that provincial government organizational structures should become increasingly adapted to transferring authority and responsibility to municipal and local levels where appropriate.

IRRIGATION

Saskatchewan's Irrigation History

Irrigation was first undertaken in southwest Saskatchewan in the late 1800s, about the same time as in Alberta. The irrigation potential of private individual projects was restricted by limited suitable land and adjacent adequate water supply of suitable quality. Public projects, those made possible by the provision of common works to supply and drain water to and from an area, were part of the early irrigation of privately owned land in Alberta. The common works were subsidized by the CPR and federal government. Saskatchewan's early irrigation was limited to private projects.

Public projects first occurred in southwest Saskatchewan in the late 1930s when certain Crown lands were converted to small group irrigation projects. Thirty- to forty-acre plots were leased to established farmers to support the livestock industry in the area. Production was restricted to forage.

Private project development expanded at a slow rate until the late 1950s. During the sixties and early seventies, with the advent of sprinkler systems, private irrigation developed steadily with only minor government assistance.

In 1968, the South Saskatchewan River Irrigation District (SSRID) began to supply water from Lake Diefenbaker to private lands in the Outlook area. By 1982, almost 37,000 acres of the potential 42,000 acres were being irrigated and producing crops as outlined in Table 4.5. The SSRID supply system was designed to serve 50,000 acres.

Irrigation Potential

The potential for further development of irrigation is dependent upon the availability and suitability of two key resources - land and water. Both must have adequate quality. Since the supply of surface water (rivers and reservoirs) or suitable groundwater in southern Saskatchewan is generally quite limited, and suitable land in combination with an adequate water supply is even more scarce, the opportunity for additional individual irrigation schemes is quite limited.

In Saskatchewan, major emphasis is placed on soil classification when assessing soils for irrigation suitability. To determine the basic soil rating for irrigation, consideration is given to soil profile, geological deposition or parent material, and surface soil texture. Non-permanent characteristics of salinity, degree of erosion, stoniness, drainage and fertility are also considered.

On the basis of these criteria, it has been estimated that up to 7.2 million acres of additional land in Saskatchewan are suitable for irrigation. The distribution of these areas is indicated in Table 4.6.

The South Saskatchewan River (Lake Diefenbaker) has had a major impact on the rate of irrigation development in southern Saskatchewan. Irrigation at present uses from 5 to 10 percent of the flow from Lake Diefenbaker. Eighty to ninety percent of the flow is used for power generation and downstream benefits. Irrigation development in southern Saskatchewan requires an assured allocation of water. Without more interbasin transfers by Alberta, the supply from the South Saskatchewan River places a limit on the development of new irrigation projects supplied from that source. For example, if there were two consecutive low flow years on the South Saskatchewan River, irrigation from this source of supply might have to be rationed in certain years if expansion exceeded 500,000 acres.

Table 4.5

IRRIGATED CROPS IN SSRID #1, 1979 AND 1982

	1979 Acres	%	1982 Acres	%
Water Rate Acres	30,690		38,024	
Developed & Irrigated in Year	870		31	
Not Irrigated - Summerfallow	1,560		1,370	
Irrigated Land	30,000	100.0	36,685	100.0
GRASS AND LEGUMES	6,370	21.2	6,589	17.9
Forage	5,660	18.9	6,208	16.9
Pasture	550	1.8	191	0.5
Seed	160	0.5	190	0.5
ALL CEREALS	12,810	42.7	23,762	64.8
Traditional Cereal	11,770	39.2	19,938	54.4
Hard Wheat	8,500	28.3	13,200	36.0
Durum	130	0.4	814	2.3
Barley (Feed & Malting)	2,640	8.8	5,376	14.6
Oats	380	1.3	354	1.0
Utility Wheat	120	0.4	77	0.2
Rye			117	0.3
Special Cereals	1,040	3.5	3,824	10.4
Buckwheat			80	0.2
Soft Wheat	850	2.9	3,165	8.6
Corn (Kernel/Silage)	190	0.6	443	1.2
Winter Wheat			136	0.4
OILSEEDS	6,090	20.3	4,755	12.9
Flax	3,260	10.9	2,285	6.2
Rapeseed/Canola	2,200	7.3	1,349	3.7
Mustard			74	0.2
Oil Sunflower	60	0.2		
Confection Sunflower	470	1.6	189	0.5
Canary Seed	100	0.3	858	2.3
LEGUME - PULSE	4,120	13.7	767	2.1
Lentils	30	0.1	487	1.3
Fababeans	3,770	12.5	280	0.8
Field Beans	320	1.1		
FRESH VEGETABLES	610	2.1	812	2.3
Potatoes	480	1.6	684	1.9
Major* (No. of Crops)	110 (4)	0.4	95 (4)	0.3
Other (No. of Crops)	20 (15)	0.1	33 (12)	0.1

* Major fresh vegetables refers to crops of 10 or more acres.

Source: Saskatchewan Department of Agriculture.

Taking into account the combined limitations of both soil and water, Table 4.6 indicates that the estimated potential for irrigation development in Saskatchewan beyond 1983 is 4.2 million acres. This is based on the total available water supply from all practical sources. The estimated 4.2 million acres is based on some degree of water transfer from one drainage basin to another. The amount of water which might be available within each basin is under active study by the Government of Saskatchewan at the time of this report.

Table 4.6

ESTIMATES OF IRRIGATION POTENTIAL IN SASKATCHEWAN (ACRES)

	Irrigated Area		**Additional Potential Based on**	
River Basin	**1978**	**1983**	**Soil Suitability**	**Water Availability**
Assiniboine	390	1,500	200,000	
Souris	5,380	6,500	460,000	
Qu'Appelle	19,270	34,000	1,500,000	
Saskatchewan	N/A	N/A	10,000	
Lakes	N/A	N/A	80,000	
Old Wives	28,100	33,000	700,000	
Missouri	54,060	55,000	50,000	
Cypress Hills	17,320	19,000	600,000	
South Sask.	58,060	118,000	1,100,000	
North Sask.	7,090	12,000	2,500,000	
TOTAL	189,670	279,000	7,200,000	4,200,000

Source: Saskatchewan Water Corporation, March 1985.
PFRA.

Future Directions

Irrigation has the potential to provide the basis for more stability and intensive production in both the grain and livestock sectors, as well as for more diversification to special crops. Such intensification and diversification would provide economic growth and stability directly and through enhanced future opportunities for value-added processing within the province. This would increase employment opportunities in all phases of the development.

In evaluating irrigation it is important to consider benefits in addition to increased yields. For example, a recent study of irrigation in southern Alberta identified the following benefits from irrigation development that may not normally be recognized:

- enhanced community water supplies,
- water supplies for industrial users,
- recreation development,
- induced specialized commercial and service industries,
- lower risk of drought-induced losses upon commercial activities,
- more attractive and pleasing landscape resulting from farmsteads with productive gardens, and urban settings with parks, and
- better facilities and services for such things as education and medical care.

It is quite evident that in addition to the further development of irrigation systems, close attention should be given to capturing the secondary benefits from the irrigation already in place. It is also clear that water development projects provide many benefits in addition to irrigation opportunities.

Costs of irrigation development and operation are wide ranging. Before irrigation is possible, water supply facilities that may include dams, canals, laterals, pumps, pipes and other works are required. In addition to the costs of developing a system to store and distribute water to farms, irrigation requires capital investment in irrigation equipment, additional storage for products, specialized agricultural machinery and drainage systems.

The cost estimates for irrigation development range from $300 to over $2,000 per acre. This very wide range is explained in part by the rather modest costs for irrigation development on small acreages in close proximity to natural water supplies, and the very high costs associated with large systems which require dams and extensive canals or pipelines for delivery of the water at the upper end of the range. Where interbasin transfer of water is contemplated, even higher costs could be anticipated. The Task Force is aware that some scientists and economists are concerned about the economic merit of the high cost systems.

Since the feasibility of irrigation is so extremely variable depending upon such factors as climate, soils, water, land tenure, crop type and variety, assessment and taxation, irrigation technology, financing, crop insurance, markets, and quotas for produce, it is important to identify those projects and types of projects that can be most beneficially developed. In the evaluation of potential projects, it is also important to consider the impact on related industries (such as local commerce, product processing and reduced need for costlier alternatives such as emergency supplies).

With all the challenges associated with irrigation, profitability is the overriding criterion. Two basic factors involved in profit are yield and cost of production. What crop(s) and variety(s) will maximize yield and net returns under irrigation? In Saskatchewan irrigation is still largely being conducted on the basis of extrapolating dryland experiences. For the crops commonly grown under irrigation in Saskatchewan, the yield plateau reached is substantially below the level reached in Alberta and below the potential yield considered possible. As a consequence, there is an urgent need for research into crop and variety development and such agronomic aspects as tillage practices, seeding requirements, fertilizer needs, harvesting, disease control, water management, pest management, and use of herbicides.

Irrigation development in Saskatchewan should proceed as rapidly as possible in harmony with farmers' interest and acceptance, the identification and priorization of projects based upon economic feasibility, and available funding. Some of the lower cost projects can be developed by individual farmers. An irrigation development target of 20,000 to 30,000 acres/year would require an average government expenditure of approximately $20-25 million per year.

To encourage irrigation development, efforts are required to overcome the current key constraints to irrigation development. These include inadequacies in insurance on irrigation crops, marketing impediments (quotas), land assessment, and regulatory problems that discourage individual producers from developing their own irrigation projects. Also, effective extension and research support are vital to assist potential irrigation farmers. To this end, and to serve the broader requirements for irrigation research and development in Saskatchewan, an irrigation development centre as discussed in the chapter on water should be considered. The main functions of such a centre would be to promote irrigated crop production through applied research in irrigation and through extension and practical demonstration. Preliminary consideration of the cost implications indicate about $2 million would be required to establish such a centre, and the annual operating costs would depend upon the extent and nature of activities undertaken.

LIVESTOCK

Many earlier studies have concluded that Saskatchewan has the potential to develop a much larger livestock industry - at both the primary and secondary levels. The province has a very large, productive land base; a suitable climate; an ample supply of feed grains and fodder; a plentiful supply of water in many areas of the province; many farms are already well-resourced to handle a substantial supplementary enterprise; in general capital is available for developing more livestock enterprises; and many farmers and ranchers are technologically advanced and in a position to produce livestock competitively.

Despite such obvious strengths, the livestock industry in Saskatchewan has not achieved the potential considered possible or desirable. Furthermore, the farming sector is still largely monocultural, based to a large extent on the production of wheat. As indicated earlier in this section, there are vast acreages in the province not suited for cultivation, and some areas are especially well suited to feed grain production. In addition, a large proportion of existing pasture and forage areas could be made more productive, and forage crop production could play a much more prominent role in protecting or restoring our depleted soil resources. Therefore, there are several reasons why it appears reasonable to work toward an expanded livestock industry.

However, it is also clearly recognized that the economic considerations involved must also be favourable. In addition, although it may make good economic sense to establish more livestock enterprises in the province, there are institutional, legislative and regulatory obstacles which impede development. Some of these are discussed in a later section. In general, it appears that livestock development requires an emphasis on policy and program development such as that accorded to the cereal grain sector; and secondly, national policies and programs need to be more supportive of livestock development in areas with natural comparative advantages. Some policies in the past have actually tended to distort such advantages rather than capitalizing on them.

The farm cash receipts from selected livestock enterprises in Saskatchewan from 1951 to 1983 are given in Table 4.7. Statistics Canada, in compiling farm cash receipts, does not include sales between farms. This relates especially to backgrounding and feeding of livestock. For example, farm cash receipts for calves and feed grains indicate out-of-province sales. Figure 4.4 shows the relative importance of cattle in the livestock sector in the province.

Table 4.7

FARM CASH RECEIPTS IN SASKATCHEWAN FROM LIVESTOCK AND OTHER SOURCES, IN CONSTANT (1981) DOLLARS

	Millions of Constant (1981) Dollars									
	1951	**1961**	**1966**	**1970**	**1974**	**1977**	**1980**	**1981**	**1982**	**1983**
Cattle	273	282	357	280	536	457	484	383	405	338
Calves	31	56	73	58	43	59	139	74	67	58
Hogs	79	84	86	124	145	75	86	79	81	66
Dairy & Dairy Supplementary	81	74	56	55	60	64	65	66	65	64
Sheep and Lambs	4	4	3	2	3	2	2	2	2	2
Poultry	35	34	25	33	38	27	24	26	25	23
Eggs	25	21	18	17	21	17	15	18	15	15
Other Livestock	9	9	10	8	12	10	14	13	12	12
TOTAL LIVESTOCK	**537**	**564**	**628**	**577**	**858**	**711**	**829**	**661**	**672**	**578**
TOTAL CROPS *	**1,713**	**1,293**	**2,057**	**1,094**	**3,063**	**2,426**	**2,863**	**3,283**	**2,927**	**2,783**
Forest Products	1	1	-	-	1	1	1	1	1	1
Deficiency, Supplementary and Provincial Income Stabilization Payments	20	77	12	91	32	43	19	64	28	17
TOTAL FARM CASH RECEIPTS	**2,271**	**1,935**	**2,697**	**1,762**	**3,954**	**3,181**	**3,712**	**4,009**	**3,628**	**3,379**

* Includes Payments for Western Grain Stabilization, Crop Insurance, CWB Net Cash Advances, Deferred Grain, and Liquidation of Deferred Grain.

Source: Statistics Canada.

CATTLE

Background and Trends

In the five-year period 1968-1972 the sale of cattle and calves accounted for an average of 18.8 percent of annual farm cash receipts. The receipts during this period ranged from 18.3 to 19.2 percent. By comparison, cattle and calves accounted for an average of 13.2 percent of farm cash receipts during the period 1980-1984. The range in this period was 11.4 to 16.4 percent.

One measure of the importance of cattle to Saskatchewan agriculture is the proportion of farms which maintain cattle. In 1976, 60 percent of Saskatchewan's 70,958 farms were involved in cattle production. By 1981 farm numbers had fallen to 67,318 and 49 percent were involved in cattle production. The distribution of cattle numbers by herd size changed considerably from 1976 to 1981. Table 4.8 shows the size of cattle enterprises in Saskatchewan in 1976 and 1981. It is interesting to note in Table 4.8 that about half of the cattle enterprises had an average of less than 50 animals. However, all segments of the industry - cow-calf, yearlings, feedlots and processing - are in a state of transition.

Most of the cow-calf industry in Saskatchewan is on mixed farms. These farms utilize existing facilities and machinery on their farms and the waste and hay land unsuitable for grain production. Cattle receipts on mixed farms are often a small percentage of overall income, and the level of management may not be fully oriented to maximizing net returns from the cattle enterprise. For example, many are not using such technology as implanting, AI, ROP, bull testing, and parasite and pest control. As well, many of these farmers are in an age group that are finding it difficult to handle labour-intensive cattle production. It appears that the new and young producers are productive and innovative. They have a more businesslike attitude and are not likely to stay in an industry with high risk and low returns. It appears that the younger operators take into consideration such factors as lifestyle, hours of work, amount of stress, and comparable urban values. They are less likely to be sentimental about the cattle industry.

Ranchers generally derive the majority of their income from cattle. Because their land base and facilities are particularly suited to the raising of cattle, they have few alternatives but to carry on with cow-calf operations. To survive they must use good management and shrewd business practices.

Although beef cows and calves are widely distributed throughout Saskatchewan, feeder cattle tend to be concentrated in the areas of transition from the dark brown to black soil zones.

Table 4.9 shows the distribution of cattle and calves in selected areas of Canada from 1974 to 1981. It shows that the proportion of cattle produced in Saskatchewan decreased significantly, whereas it stayed about constant during this period in Ontario.

Table 4.8

SASKATCHEWAN FARMS REPORTING CATTLE, 1976 AND 1981

Item	1976 Number of Farms	1976 Percent of Farms	1981 Number of Farms	1981 Percent of Farms	% Change + Increase - Decrease
CATTLE:					
Farms reporting	42,348	100.0	32,805	100.0	-22.5
1 - 2 animals	871	2.1	844	2.6	-3.1
3 - 7 animals	2,688	6.3	2,441	7.4	-9.2
8 - 12 animals	2,461	5.8	2,124	6.5	-13.7
13 - 17 animals	2,181	5.2	1,793	5.7	-17.8
18 - 32 animals	6,735	15.9	4,988	15.2	-25.9
33 - 47 animals	5,412	12.8	4,202	12.8	-22.4
48 - 62 animals	4,922	11.6	3,573	10.9	-27.4
63 - 77 animals	3,616	8.5	2,815	8.6	-22.2
78 - 122 animals	6,840	16.2	4,947	15.1	-27.7
123 - 177 animals	3,363	7.9	2,513	7.7	-25.3
178 - 272 animals	2,006	4.7	1,507	4.6	-24.9
273 - 527 animals	990	2.3	819	2.5	-17.3
528 animals and over	263	0.6	239	0.7	-9.1

Source: Statistics Canada.

Table 4.9

TOTAL CATTLE AND CALVES ON FARMS, SASKATCHEWAN, CANADA AND SELECTED REGIONS, AS OF JANUARY 1, 1974-1981

	Saskatchewan Number (000s)	Saskatchewan % of Total	Prairies Number (000s)	Prairies % of Total	Ontario Number (000s)	Ontario % of Total	Canada Number (000s)	Canada % of Total
1974	2,627	19.5	7,736	57.4	3,245	24.1	13,481	100
1975	2,787	19.5	8,283	58.0	3,336	23.4	14,278	100
1976	2,795	19.9	8,215	58.5	3,252	23.2	14,048	100
1977	2,645	19.3	7,981	58.2	3,212	23.4	13,710	100
1978	2,333	18.1	7,391	57.4	3,005	23.4	12,870	100
1979	2,173	17.6	6,986	56.7	2,920	23.7	12,328	100
1980	2,167	17.5	6,962	56.1	2,940	23.7	12,403	100
1981	2,095	16.8	6,850	54.9	3,030	24.3	12,468	100

Source: Statistics Canada.

Recent new livestock programs are designed to accommodate technological developments and to recognize economies of size. New Saskatchewan programs to encourage backgrounding and finishing cattle include the Feeder Associations Loan Guarantee Program, Livestock Investment Tax Credit, Beef Stabilization Program, Feeder Finish Plan, and Agricultural Credit Corporation of Saskatchewan loan program.

Production and Marketing

The number of cattle and calves on Saskatchewan farms decreased from 2,627,000 in 1974 to 2,095,000 in 1981, a reduction of 20 percent (Table 4.9). Saskatchewan, with about 1/3 of the prairie cattle and calves in 1976, accounted for over one-half of the prairie decline from 1976 to 1981.

Approximately 30 percent of Saskatchewan feeder cattle are marketed to Saskatchewan destinations. Feeder destinations outside Saskatchewan are predominantly Ontario and Alberta, although Manitoba and USA destinations also account for significant numbers. Since 1976 the number of cattle shipped to Ontario destinations have usually exceeded those to Saskatchewan.

Although Saskatchewan is now processing a higher percentage of its slaughter cattle, this percentage increase is mostly due to the reduction in numbers of cattle. Manitoba and Alberta are the main out-of-province destinations for Saskatchewan slaughter cattle. As late as 1977, Manitoba slaughtered more Saskatchewan-fed cattle than did Saskatchewan.

Feed Grain and Transportation Policies

Federal policies have impeded the growth of the western livestock industry. The National Feed Grain Policy and the strict control of the movement of grains by the Canadian Wheat Board have assisted eastern Canadian interests at the expense of western producers. Such policies have made it difficult to achieve value-added processing, either through the feeding of livestock or through processing of cereal products in the prairie region. As a result, much of the feedlot industry of Canada has gravitated to Ontario and Quebec. This has also occurred in the Canadian packing industry. It appears that national controls and restrictions have been more powerful than the natural competitive advantages of the livestock industry in western Canada. Given the political strength of the eastern Canadian livestock sector, it may be very difficult to achieve reform to the federal feed grain and transportation policies.

The movement of western grains to other areas of Canada and to export positions provided a significant economic benefit to the wheat and feed grain sectors of Saskatchewan agriculture for many years. However, this also provided feed grains at a reduced cost to the livestock producers in British Columbia, central Canada and the Maritime provinces. For Saskatchewan livestock producers it meant a significant loss of a comparative advantage which they should have had by virtue of being in an area with a highly productive feed grain base. Furthermore, they receive a substantially lower price for their final products due to the long distances from the major consuming centres of Canada.

For the grain and oilseed crop producers, the main disadvantages of the Crow rate were the adverse effects it had on the development of a stronger trucking industry, the development of a processing industry for their products, and the disincentive to diversify into crops not included under the Crow rate provisions.

In the current debate and studies on how best to utilize the Crow Benefit funds to be provided by the Government of Canada (about $658 million per year), a basic question is: to whom should these funds be paid - the railways for branch line maintenance and upgrading, the producers to permit them to rationalize their operations in response to a reduced network of rail lines, the provincial governments in western Canada for upgrading their highway and market road systems to offset the loss of rail branch lines abandoned, or some combination of these?

It appears quite clear that if all of the Crow Benefit funds were paid to either the railways or primary producers, some basic needs in western Canada would not be achieved:

- diversification of agriculture and the development of alternate crops for new markets would continue to be impeded,
- the development of a processing industry would be impeded,
- there would be little incentive for the development of alternative methods of shipping primary and processed products, and
- the highway and main market road systems would not be adequately developed for an expanded trucking industry.

Therefore, it appeared to the Task Force that it would be a mistake to pay all of the Crow Benefit funds to just one major recipient group - especially since it would not lead to major support for expanded economic development. For the same reasons, the Task Force concluded that a three-way distribution of the Benefits would lead to such much-needed development.

Based on the presentations made to the Task Force, it is clear that serious consideration should be given to paying at least a portion of the Crow Benefit funds to primary producers who are faced with substantial additional costs as rail branch lines are abandoned (for such things as paying for longer grain hauls, bigger trucks, and the need for more on-farm storage). At the same time, it is becoming increasingly difficult for the provinces to provide an adequate highway and market roads system which is required by many sectors of the economy for a growing trucking industry (see chapter on Roads). It is also recognized that the railroad companies need funds to maintain and develop branch lines that are still required for a modern railway system in western Canada.

The Task Force concluded that the Crow Benefit funds should be provided to the western provincial governments, the primary producers, and the railroad companies. It appeared to the Task Force that it would be desirable to provide one-third of the Crow Benefit funds to each of the three major recipient groups. This would facilitate some much-needed rationalization and maintenance of an adequate rail branch line system, the development of a strong trucking industry, the development of a more adequate highway and market roads network, and would provide a major stimulus to economic development of western Canadian agriculture - especially in livestock and diversification of the grain and oilseeds sector.

Profitability

The cattle industry has a history of cyclical profitability, with some years of relatively good returns and some with very low or negative returns. Many producers have been able to survive the "downs" by taking advantage of the "ups." The high and low periods can both last two or three years. During the 1970s and early 1980s there have been quite a number of years when many cow-calf operations in Saskatchewan were not profitable. The poor profit picture explains much of the decline in cow numbers. Profit per unit varies widely between farms. Because of better market information, some producers have been able to capitalize on the within-year price variability in feeder steer prices. Costs are lower for some producers because of such factors as differences in herd size, pasture availability and rental rates. However, many beef producers have been forced to sell down basic herds to remain in business.

Table 4.10 provides a rough indication of the profitability of the cow-calf sector from 1970 to 1981. As indicated, according to the sources quoted there was a positive net return only in 1979. In interpreting this table, it is important to keep in mind that the Beef Stabilization Plan Cost of Production Model charges the full economic cost for all inputs. On some farms and ranches this may not be totally valid when separating the cattle enterprises out of the total farm or ranch unit in cost analyses. Also, the figures represent averages for the entire industry. Although the net returns have obviously been very low and distressing for many producers, many have persisted and survived. In large part this has been achieved by earning less than an adequate economic return for such inputs as labour, land and machinery, and by selling off some assets, including basic herd animals. At the same time, it has been essential to reduce input costs to the extent possible.

Table 4.10

COW-CALF PRODUCTION COSTS, FEEDER PRICE, AND NET MARGIN AT SASKATOON, 1970-1981

Year	Cost/cwt. of Gain 0-450 lbs.	Price of 450 lbs. Feeder Steers	Net Margin
	- - - - - - dollars per hundredweight - - - - - -		
1970	54.40	31.55	-22.85
1971	55.20	32.95	-22.25
1972	56.90	37.40	-19.50
1973	59.90	53.55	-6.35
1974	74.80	40.71	-34.09
1975	83.40	29.48	-53.92
1976	82.00	38.36	-43.64
1977	85.50	39.66	-45.84
1978	84.70	54.48	-30.22
1979	94.20	108.04	13.84
1980	124.00	85.00	-39.00
1981	141.20	76.61	-64.59

Sources: Beef Stabilization Plan, Cost of Production Model, Saskatchewan Department of Agriculture.
Agriculture Canada, Livestock Market Review.
The Saskatchewan Beef Industry, Rosaasen & Schmitz, University of Saskatchewan, March 1984.

The severity of the current downturn, which has already lasted four years, can be attributed to the following main factors:

- The depressed national and international economic situation has resulted in less red meat consumption by consumers faced with declining real disposable incomes.

- The federal feed grain policy and the Crow rate benefit have placed western livestock producers at an economic disadvantage in competition with eastern Canadian and USA competitors.

- Financial limitations resulting from rising interest rates have resulted in higher finance costs, with less income remaining for debt repayment.

- The cost/price squeeze which has affected all sectors of agriculture has also seriously affected the cattle industry.

- Rising land acquisition costs and subsequent increasing leasing fees have added to the burden of many producers.

- Several successive years of drought in southern Saskatchewan have reduced carrying capacities, restricted feed and water sources, and increased overall production costs.

The average profitability of feeding cattle in Saskatchewan from 1975 to 1981 is shown in Table 4.11. On average, 1975 and 1978 were profitable years for feeding cattle. In the seven-year period, there were five loss years. This average profit profile partly explains the decline in feeder cattle in Saskatchewan (284,185 in 1977 compared to 219,880 in 1981).

Opportunities

1. Land Base

Saskatchewan has approximately 20 million acres of land more suitable for raising livestock than crops. Ranching operations are now located mostly in the semi-arid south and southwest regions. Cow-calf operations appear best suited to utilize the native grasslands of the area.

Central Saskatchewan is ideally suited to livestock operations. Abundant forage, ample water supplies, natural shelter in bluffs of trees and plentiful low-cost roughage are all positive factors which could be exploited to increase the livestock industry in this region.

Northern areas have many of the same advantages. However, transportation costs, heavy winter snowfalls and prolonged periods of extreme cold reduce the parkland's potential as a major livestock region.

2. Breeding Stock

Saskatchewan has excellent quality breeding stock. The Western Canadian Agribition has become an international showplace, mostly due to the very high quality of registered and commercial herds in this province. Sufficient numbers of breeding stock are still in place to allow rapid expansion if there is sufficient economic incentive.

Table 4.11

SLAUGHTER AND FEEDER STEER CALF AVERAGE PRICES, COST OF GAIN, BREAK-EVEN PRICE, AND NET MARGIN, SASKATOON, 1975-1981

Year	Month	A1 & A2 Slaughter Steers	450 lb. Feeder Steers	Cost/ cwt. of Gain[2]	Break-Even Slaughter Price	Steer Price less Break-Even Price
		- - - - - - - - - dollars per hundredweight - - - - - - - - -				
1975	March	35.77	28.30	53.00	40.06	-4.29
	June	47.21	31.80		41.90	5.31
	Sept.	45.61	23.64		37.62	7.99
	Dec.	42.18	34.20		43.15	-.97
1976	March	36.54	30.15	51.00	44.79	-8.25
	June	39.31	39.56		45.01	-5.70
	Sept.	37.83	33.39		41.78	-3.95
	Dec.	39.39	36.84		43.58	-4.19
1977	March[1]	36.35	37.84	50.00	43.63	-7.28
	June	39.66	38.23		43.83	-4.17
	Sept.	42.18	40.51		45.01	-2.83
	Dec.	43.56	42.06		45.84	-2.28
1978	March	49.06	46.98	47.00	44.75	4.31
	June	66.12	65.89		56.90	9.22
	Sept.	62.59	67.79		57.89	4.70
	Dec.	61.35	70.29		59.20	2.15
1979	March	78.07	115.68	49.00	83.93	-5.86
	June	78.87	113.09		82.57	-3.70
	Sept.	75.16	95.62		73.42	1.74
	Dec.	76.38	107.77		79.78	-3.40
1980	March	71.97	89.99	66.00	78.57	-6.60
	June	69.56	76.65		71.59	-2.03
	Sept.	76.92	85.42		76.17	.75
	Dec.	80.82	87.91		77.48	3.34
1981	March	73.63	82.96	79.00	81.07	-7.44
	June	78.10	77.44		78.18	-.08
	Sept.	73.24	72.30		75.49	-2.25
	Dec.	68.89	73.76		75.86	-6.97

[1] Feeder steer weights were increased from 400-575 lbs. to 500-600 lbs.
[2] Beef Stabilization Plan, Saskatchewan Department of Agriculture, Cost of Production-Finishing (Costs Per Steer, 450-1050 lbs.).

Sources: Agriculture Canada, Livestock Market Review.
The Saskatchewan Beef Industry, Rosaasen and Schmitz, University of Saskatchewan, March 1984.

3. Irrigation

Expansion of irrigation should lead to increased livestock production. Livestock and irrigated cash crops have a natural correlationship. Also, food processors can purchase irrigated crops and return the waste products to the livestock industry for roughage. Irrigation research could result in a large potential for high quality, low cost forage and silage production. It appears that much more could and should be done to facilitate the development of more small supplemental irrigation projects in the entire southern half of the province.

4. Livestock Parks

In a few cases, farmers have combined their resources to form larger production units to attain greater efficiencies and economies of size. Formal organizations of shareholders that limit themselves primarily to livestock related production have become known as livestock parks.

It appears that significant opportunities exist for specialized livestock operations in Saskatchewan. To encourage the retention of calves, Saskatchewan should promote the expansion of backgrounding and finishing facilities. There can be significant economies of size in such larger operations, as is evident by the size of feedlots in the United States and in Alberta. Consideration should be given to the encouragement of more livestock parks to help achieve economies of size and the following additional advantages:

- fixed capital investment costs can be shared by many producers,
- equity holders can provide some of the feed grain required to improve the viability of the operation, especially during periods of depressed returns in livestock production,
- provide increased opportunities for additional integration of production and marketing of livestock, and
- increase the use of locally supplied inputs, resulting in greater development spin-offs in the local economy.

5. Expansion of Market Opportunities

Saskatchewan's economy would be greatly strengthened if the heavy dependence on wheat could be reduced. There is a need to diversify. Livestock production offers perhaps the greatest potential for diversification within agriculture. With reasonable markets, Saskatchewan could easily expand its current production by 30 to 40 percent.

The USA is the world's largest importer of beef (24 percent of world beef imports) and offers the greatest potential for export of both Saskatchewan feeder cattle and processed beef. The stability of the American economy and the excellent USA record of payment for imports makes the USA a preferred market for all exporting nations. The large market potential on the USA west coast should be the target of Saskatchewan's producers. This area has a population which is greater than that of Canada, and is within 800 miles of our border. This market is more available and much closer than Ontario, where Saskatchewan now delivers a large portion of its cattle.

There is great potential for increasing exports of Saskatchewan breeding stock in the international arena. Mexico and South America especially offer a large potential for sales of breeding stock. Sales to these countries can be initiated at minimum expense due to few limitations on such things as quarantine. The Japanese have a specialized requirement for highly finished grain-fed beef. However, it is likely that Japan would prefer to import breeding livestock from Saskatchewan and utilize their own resources to feed out the finished product themselves.

Producers will likely need some provincial and/or federal support and assistance if these markets are to expand beyond existing levels.

6. Government Programs

Many senior government programs have been established over the years in attempts to assist the cattle industry. It was beyond the scope of the Task Force to evaluate all of these programs fully, but references in various presentations to some of the major programs provided considerable information and insights. These were considered to be useful for further consideration and for taking into account in future policy or program development.

The Saskatchewan stabilization program appears to have had little effect on historic producer patterns. In 1975 the Saskatchewan beef breeding herd reached a total of about 1.25 million. The recent poor market prices, severe drought conditions and labour-intensive requirements of cattle production will probably result in the basic herd dropping to about 750,000 during the current cycle, despite the stabilization program. This program attempted to increase herds by encouraging calf-to-finish production. Producers did not participate in great numbers because most are cow-calf operators, not geared to finished beef production. Furthermore, cattle producers tend to be cautious and slow to change.

The FarmStart program (now Agricultural Credit Corporation - ACC) is still evolving. At the outset it resulted in some new operators getting into a size of operation beyond their management and debt carrying capability. There were other difficulties, but over-capitalization was an underlying problem of quite a number of borrowers in this program. The benefit of hindsight suggests that new producers should have worked into production on a more gradual basis, rather than starting with high priced, often unnecessary equipment and operations which were oversized. This would have reduced the problems of repaying debts because loans were based on projections of cash flow and expenditures which some of the borrowers were unable to achieve. However, the original concept of FarmStart and the current ACC program are good. The need now is to adapt the ACC program to the farming needs of the 1980s.

Drought and emergency feed/fodder programs result in a difficult mix of problems. Some situations are real emergencies and government assistance is needed and justified. However, such programs can be very costly and of limited long-term economic value. Furthermore, they tend to provide the basis for future expectations of similar assistance, and reduce the need for producers to ensure an adequate feed reserve as part of their ongoing operation. The present herd maintenance payment of $48.00 per cow has been well accepted. It appears to have had the desired effect of reducing costs to producers, equally and regardless of location of feed supplies. By paying the producers, transportation costs have remained competitive and the benefits have not gone primarily to truckers.

Prairie Farm Rehabilitation Administration (PFRA) and provincial community pastures have been important components of the Saskatchewan cattle industry for many decades. Presentations to the Task Force suggested that consideration should be given to providing more local autonomy in the administration of these pastures. This was indicated also regarding the administration of Crown land leases. There was support, for example, for selling more of the land in public pastures or land leases to private individuals or grazing associations.

One approach to providing more local autonomy and control would be to alienate more of the Crown land to private ownership (to individuals or associations). The chapter on Land has a recommendation which relates to this approach.

HOGS

Background and Trends

The Saskatchewan hog industry has a long history of volatility, both in terms of the number of producers participating in the industry and the total production within the province. Figure 4.5 shows a mild upward trend and dramatic swings in production since 1947.

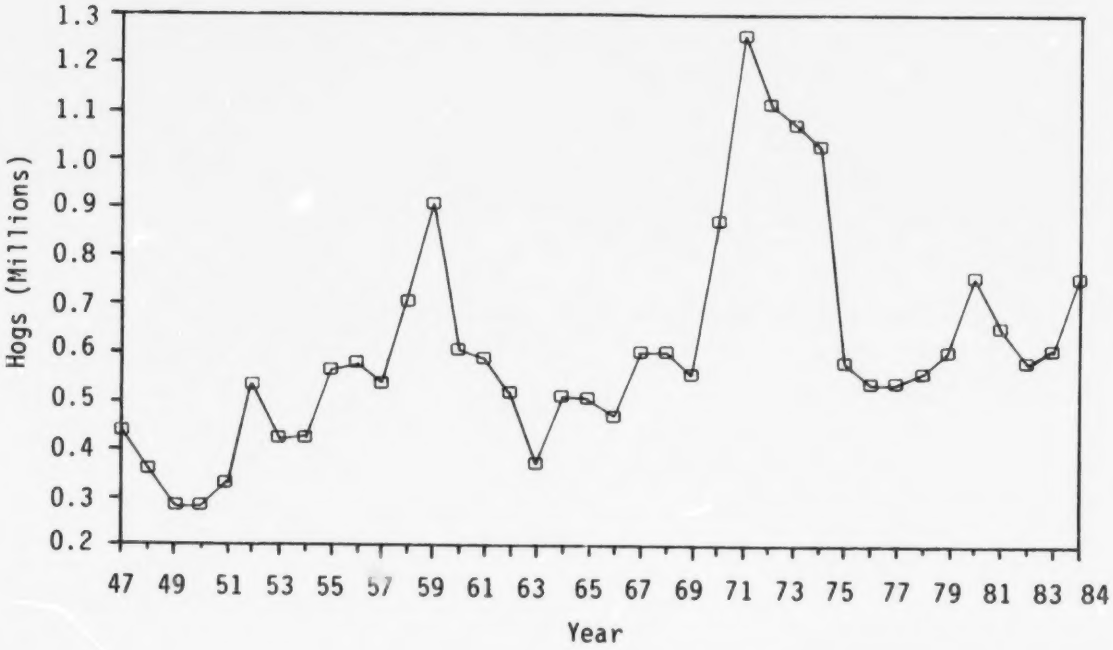
Figure 4.5 illustrates the following:

- Upswings in hog production usually follow grain surpluses and low grain quotas such as occurred in 1951, 1958 and 1968; and/or poor grain prices as exemplified through the 1950s, in the early 1970s and at present.

- Hog production has responded only mildly to government incentives. For example, the impact of the relatively attractive credit program of the Agricultural Credit Corporation (formerly FarmStart, 1974) and the cost of production security of the Saskatchewan Hog Assured Returns Program (SHARP, 1976) appear to have been restrained by the rise in wheat prices combined with open quotas which removed the need for hogs to consume cheap farm-stored grain.
- The current production upturn is largely due to two things: a response to low grain prices and a windfall in hog prices in 1982 and early 1983 resulting from the removal of subsidized Danish pork from much of the world market, especially Japan. This was brought on by an outbreak of foot and mouth disease in Denmark.

Figure 4.5

SASKATCHEWAN HOG PRODUCTION, 1947 TO 1984



Saskatchewan's expanded production is dwarfed by the increases in all other parts of Canada. Table 4.12 shows the increase in sow herd, in Canada, by province, 1976-1983. The Saskatchewan herd is increasing at present, although some casualties are occurring among producers having low equity, or those where productivity is not consistently high. The increase in production in 1983 was 26 percent and in 1984 it was 15 percent. Hog production in Saskatchewan may rise to 1.0 million in this decade. The expanded production is the result of new investment in larger units adopting recent technologies and techniques in confinement rearing and energy conservation.

Table 4.12

SOWS BY PROVINCE, 1976 AND 1983
(Thousands)

	Maritimes	**Quebec**	**Ont.**	**Man.**	**Sask.**	**Alta.**	**B.C.**	**Canada**
1976	23.1	154.5	216.4	64.3	51.4	86.5	6.7	602.9
1983	45.1	320.0	390.0	103.0	61.7	130.0	28.0	1077.8
Percent Increase	95.2	107.1	80.2	60.2	20.0	50.3	317.9	78.8

Source: Handbook of Selected Agricultural Statistics, 1984, Published by Agriculture Canada.

Problems

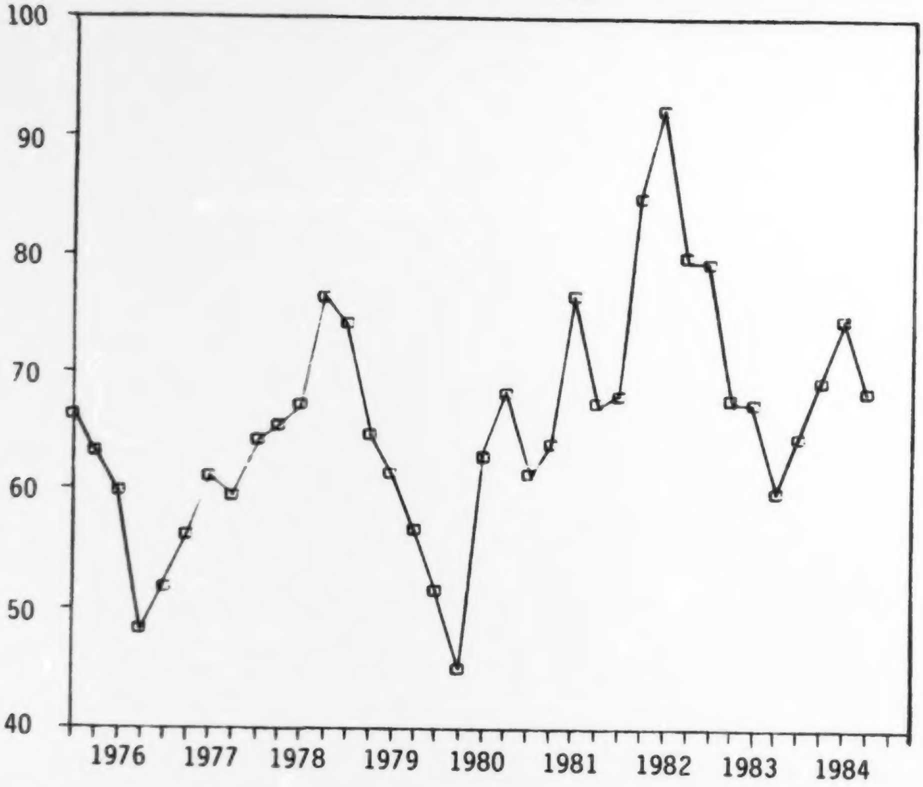
1. Profitability

Profit in the hog industry is characterized by an approximate four-year price and production cycle which is North American in scope. The cycle is caused in part by the 11-month biological time lag between a decision to produce (given a ready-to-breed gilt) and the arrival of that production in the market (Figure 4.6). The four-year price cycle is further complicated by seasonal price fluctuations as shown in Figure 4.7. This seasonality exists because of seasonal demands for pork meat and the normally heavy slaughter in spring and fall.

The result is that a continuously producing hog operation will experience at least one year of poor profitability in every four, and may experience considerable profit variation withing the year. Additionally, recent non-traditional cost squeezes due to energy and interest cost increases have caused greater profitability problems. Where operators have a large fixed cost, the approach of decreasing production during poor price periods is no longer very practical for many producers.

Figure 4.6

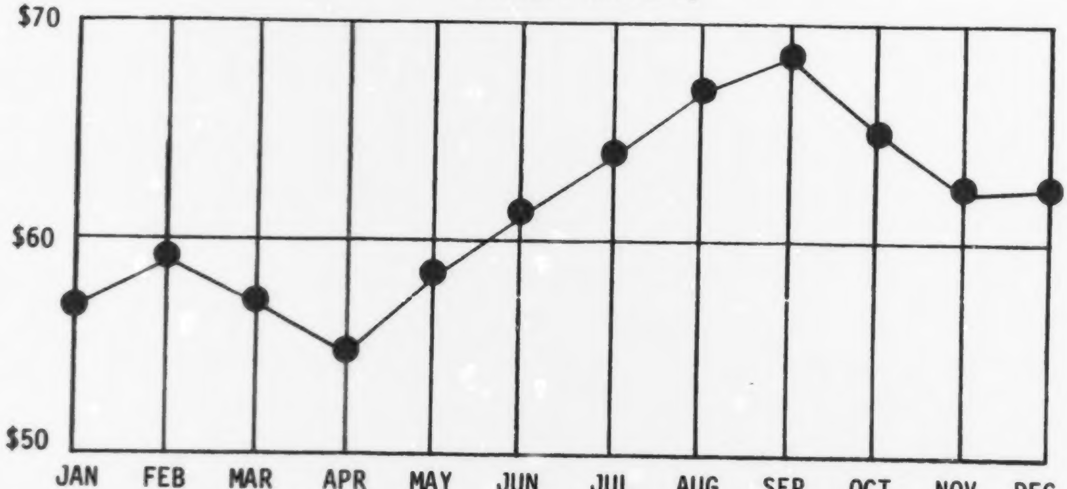
QUARTERLY AVERAGE HOG PRICES
(1976 - 1984)



Source: Saskatchewan Pork Producers Marketing Board.

Figure 4.7

SEASONAL PRICE VARIATION
10 Year Monthly Average (1973 - 1982)
($/CWT, dressed)



Source: Saskatchewan Pork Producers Marketing Board.

The Saskatchewan hog industry makes up less than 1 percent of the North American industry. General price levels are determined in the much larger North American market. Thus the key to survival and expansion of the Saskatchewan hog industry lies in its being able to be as cost competitive and efficient (or more so) as the Northern American industry, and in producers having a sufficient equity base to withstand periods of poor profitability.

Margins on prepared feed are very wide in Saskatchewan and feed mill capacity is highly utilized. Entry of one or two more independent feed mills should be encouraged to reduce margins and provide more producers with the opportunity of using prepared feed at a reasonable cost.

2. Hog Business Management

Hog business and technical management extension is vital. The extensive technology changes associated with intensive hog production make it imperative that extension workers have the opportunity and encouragement to remain fully abreast of all new developments.

Water quality is a problem on many Saskatchewan farms, as high sulphite content renders some supplies unfit for baby pigs. This was verified in a joint Agriculture Canada-Saskatchewan survey of agriculture conducted in 1983. More extensive testing of on-farm water supplies, and programs to encourage producers to locate ample supplies of livestock compatible water are needed.

The majority of hog producers in Saskatchewan use home formulated feeds, especially sow feed and grower-finisher rations. As determined by the survey noted in the previous paragraph, many of these rations are inadequately balanced, resulting in poor productivity and performance. The availability of feed testing facilities needs to be expanded, its use greatly popularized, and the current body of knowledge of feed formulation needs upgrading. While protein supplementation is more widely known, the balancing of rations for correct energy content (through the addition of wheat, corn or other sources) is not widely practised.

The preparation of hog production extension material by the Saskatchewan Department of Agriculture is very limited. Extension material produced by the Prairie Swine Centre is not aggressively distributed. A more extensive program of preparation and distribution of such material is needed. The recent Hog Production manual published by the Saskatchewan Pork Producers Marketing Board is an example of what is needed.

New producers contemplating entry into intensive hog production have difficulty in upgrading their production and management skills, except through trial and error. Wascana Institute courses are poorly attended, and Manpower-sponsored training courses are no longer offered. An effective method of training which combines theory and practical experience is needed.

Opportunities

Saskatchewan is more than self-sufficient in hog production. If supply management can be avoided and open trade maintained, especially to the United States, the growth potential of the Saskatchewan hog industry is great. The province should be able to compete effectively in the North American market.

Saskatchewan is, and will continue to be, a substantial exporter of feed ingredients. High energy grains are produced abundantly, although price and availability are distorted at times by government policies.

The main protein source for livestock feeding at present is imported soybean meal. While Saskatchewan's production of protein products such as canola, lentils, fababeans and peas continues to increase, most products are still exported from Saskatchewan in the raw state. Some screenings are used, and about 10 percent of our canola production is crushed in Saskatchewan. The result is that the province loses about 90 percent of the potential canola meal.

Saskatchewan has a vast land base which is increasingly nitrogen and phosphorous deficient. Only a small fraction of these nutrients is currently supplied by swine manure - a big increase could take place without causing pollution of waterways. Saskatchewan's vast spaces could house many more hog operations without air pollution (odour) becoming a problem.

Only a small percentage of Saskatchewan's farmers currently raise hogs (less than 10 percent). A modern hog enterprise is one opportunity some distressed grain farmers could use to expand their current operation to make it economically viable. More new farmers could possibly enter farming via hog production on their father's farm than is the current practice.

The rate of technological change in hog barns in the last decade has been rapid and continuous. The current emphasis is on energy conservation and ventilation of confinement barns. There is a need for further research in these areas and in the design of expandable facilities. The advantages of expandable units include the following:

- management proficiency comes with experience,
- many producers expand their operations four or five times during their career,
- practical production limits per manager continue to rise with technology, and
- capital-short new producers are able to begin with labour-intensive farrowing and weanling enterprises.

Although there is a trend to "bigness," a continued role will likely exist for farms where hog production is a supplemental enterprise. In this type of enterprise, cash generation is the objective. The labour required to do so is often considered incidental. Such enterprises will contribute to maintaining the rural community even though they might be judged as somewhat uneconomic by strict economic measures.

Dairy, Poultry and Sheep

Dairy, poultry and sheep produce about $100 million of farm cash receipts annually for Saskatchewan (see Table 4.7). The historical instability of producer returns in these industries has led to the establishment of supply management systems for dairy and poultry products. Saskatchewan has supply management marketing boards in place for milk, eggs, chickens and turkeys. These boards participate in national supply management schemes which regulate the products produced in Canada. Although there is some export of dairy and poultry products from Canada, the industries are geared primarily toward serving the domestic market.

Development opportunities in dairy and poultry are dependent mainly upon the growth of the Canadian dairy and poultry market and Saskatchewan's success in bargaining for increased quotas under the national supply management systems. The dairy and poultry industries are located to a large extent on the basis of population distribution. Since the national supply management agencies recognize population as a determining factor in allocating quotas, Saskatchewan's growth in these industries will depend in part on provincial population growth.

As of January 1, 1985, there were only about 37.5 thousand sheep and lambs on Saskatchewan farms. This was a decline of about 11 percent from a year earlier and continued the downward trend in Saskatchewan sheep numbers. There appears to be considerable scope for expansion of the sheep industry, but current conditions are not favourable enough to encourage an expansion.

CONCLUSIONS

Much of this section on agriculture addresses problems and constraints, and where possible suggests remedies. The section also identifies many basic strengths and potential opportunities which can be built on. The identification of numerous problems should not detract from the successes that have been experienced in Saskatchewan agriculture, and the opportunities there are to greatly enhance the size and well-being of this industry. Part of the challenge is to overcome the problems and constraints identified.

It is clear that more resources should be devoted to the evaluation of potential economic opportunities, to determine how to most effectively provide the economic and social services required in rural Saskatchewan, and to develop programs and policies which would support local initiatives to promote new opportunities. Agriculture provides a major base for the growth of value-added production, services and rural communities in general.

The Task Force concluded that there would be merit in undertaking an in-depth review of the role and further development of agriculture, particularly as it pertains to rural development and the well-being of the industry itself. New thrusts to broaden the agricultural base and to reduce the dependency on the exporting of grain should be explored. This is not to suggest any lessening of dedication to improving the capabilities of the province as a major grain producer. Efforts should continue to develop and improve cereal and oilseed crop varieties and, within the confines of good soil management and sound economics, to maximize productivity. The basic suggestion is that a wide range of additional developments should be considered . . . not at the expense of the wheat economy, but to supplement it.

New thrusts could include some substitution of special crops on land now devoted to cereals, and a major emphasis on revitalization and expansion of the livestock industry. Agrologists have long recognized that Saskatchewan has the land base and crop production to sustain a greatly expanded livestock industry. To achieve a higher level of agricultural development and a healthier industry will require the concerted effort of the thousands of entrepreneurs involved, local governments, and the Government of Saskatchewan. A major responsibility of the provincial government will be to work closely with the Government of Canada to minimize or remove institutional, legislative and regulatory constraints that affect agriculture.

RECOMMENDATIONS

1. A major review of the entire agricultural industry in Saskatchewan should be undertaken to help determine the direction of policies and programs that should be pursued during the next decade or so. This should be undertaken in the context of seeking a stronger, more diversified agriculture, and achieving desired rural development objectives.

2. The Government of Saskatchewan should provide more funds for research and development related to the provincial agricultural industry. Such additional funding should be provided to enhance the research and development capabilities of the Saskatchewan Department of Agriculture and such provincial research institutions as the College of Agriculture and the Saskatchewan Research Council. Increased research should be undertaken as soon as possible regarding such areas as the following:

- the economic and agronomic aspects of continuous cropping, minimum tillage, or zero till methods,
- the economic and production considerations of working toward greater self-sufficiency in meeting the province's needs for horticultural products (including vegetables, fruits and ornamentals),
- the technological and economic aspects of confinement livestock production,
- the development of low-cost feeds and use of crop residues,
- the development of a government-assisted forage expansion program to support an expanded cattle industry and provide a major component of a soil conservation program, and
- farm business management.

3. Extension materials should be prepared pertaining to the economic and technical aspects of such development opportunities as improved use of pasture and hayland, honey production, livestock production, special crops, horticultural crops, inter-farm business arrangements to facilitate greater use of livestock resources, and the establishment of agricultural livestock parks.

4. The Government of Saskatchewan should establish a long-term, clearly targeted program of irrigation development. The program should recognize the options for individual farmers to develop supplementary as well as intensive irrigation schemes, and also group development of irrigation projects. This should be based on a comprehensive evaluation of all benefits and costs involved.

5. The Province should consider the establishment of an irrigation research centre to undertake and co-ordinate irrigation related research, both at the centre and with farmer co-operators.

6. Since much of the potential for further development of Saskatchewan agriculture is dependent on finding additional markets, the Government of Saskatchewan should undertake a concerted effort to locate and develop expanded export markets for such products as pork, specialty crops (processed or unprocessed), beef, honey, starch and edible oils.

7. The Government of Saskatchewan should urge the Government of Canada to pay at least one-third of the annual Crow Benefit funds to primary producers, to remove a major handicap of the Saskatchewan livestock industry and to help achieve a more diversified economy in Saskatchewan. This recommendation should be considered in combination with a related recommendation in the chapter on Roads.

CHAPTER IV

ECONOMIC DEVELOPMENT

FARM SIZE AND RURAL DEVELOPMENT

Farm size relates to the economic and social well-being of both the farming community and the related urban centres. This is one reason why considerations of farm size are of concern to many people - both on farms and in urban centres. There is no consensus on whether increasing farm size is clearly undesirable in rural development, in part because rural communities and their needs and characteristics are changing at the same time as structural changes are occurring in farming. Much depends also on how farm size is measured. Clearly, there are pros and cons to changes in farm size.

Arguments in support of increasing farm size include increased farming efficiency; more effective, sounder farm business management; increased capability to compete in tough world markets; and increased standards of living for farm families. Such arguments are important and need to be carefully considered in working toward a desirable size of farm. At the same time, it is very important to keep in perspective the extent to which increasing size results in lower costs of production, and at what level increasing size basically results in higher income due to increased volume of production.

Many studies have shown that farm enterprises need not be very large to be quite efficient if available resources are wisely used. For example, an efficient 2.5-section grain farm in Saskatchewan may be able to produce wheat just as cheaply as 4- or 5-section grain farms. The latter, however, if also efficiently organized and operated, would generally have much larger incomes because of the greater volume of production. Studies have also shown there is a wide range in efficiencies in all farm size classifications, which indicates the importance of sound farm business management in today's highly commercialized farming.

Arguments presented in support of discouraging the development of very large farms include concerns about the increased difficulties for new farmers to become established as capital requirements increase, difficulties in transferring farms from generation to generation, and increased income disparities between small and large farmers. There are also concerns about the adverse effects of sparse farm and ranch populations on service centres and their ability to provide adequate services and amenities, and the greater capability of large farmers to outbid smaller operators or beginners as additional land becomes available. Because the problems of beginning farmers are clearly becoming more difficult, there is an urgent need to develop and facilitate the use of alternative approaches to getting established -

such as greater use of part-ownership discussed in the section on Primary Agriculture, and part-time farming discussed in the following section.

Regarding rural development and well-being, one of the greatest concerns relates to farm size increases which result in the loss of people in rural areas. The strong interdependence of urban service centres and the surrounding farming sector is basic to this concern.

Increases in farm size achieved through intensification may not result in the loss of rural population. For example, farms that increase their size by increasing their volume of output (by such means as more intensive production or adding livestock enterprises) can lead to the need for more people, rather than less. Similarly, if value of production is used to measure farm size, an increase need not lead to a loss in population. However, the increases in size as measured in terms of the land base have been strongly correlated with the loss of rural population. If farm size increases are achieved through such means as increasing volume of output, the quantity of capital employed, or the number of people employed, farm size increases can have positive effects on rural development.

The deleterious effects of large farms on community development, using acres per farm as the measure of size, were studied by a USA Senate Special Committee appointed to study problems of American small business, in the early 1940s. The report of this Committee, published in 1946, concluded that the "quality of social conditions is negatively associated with scale of operations; that farm size is an important causal factor in the creation of such differences, and that it is reasonable to believe that farm size is the most important cause of these differences." Although there is still some controversy about the data and method used to support the conclusions reached by the Special Committee, there appears to be substantial acceptance of the principal conclusion indicated.

Map 3, following this page, shows the changes that have occurred in each census division from 1961 to 1981.

Table 4.13 clearly indicates that the average size of Saskatchewan farms has increased steadily during the last 75 years or so - whether measured in acres or capital investment. Each census report from 1911 on indicates that the average acreage per farm increased in each census period. The average acreage in 1981 was about 3.2 times the 1911 average. The table also shows that the average amount of capital used per farm has increased greatly since 1911. The decrease in average capital from 1921 to 1931 reflects the fairly sharp decline in land values during this period, and the further decrease from 1931 to 1941 reflects the impact of the severe economic depression in the 1930s.

The very large increases in average capital per farm from 1971 to 1981 reflect especially the rapidly rising land values during this period. From 1961 to 1971, land values also rose rapidly, but in addition, average farm size in terms of acreage increased very significantly.

Table 4.14 indicates that farm size has also increased greatly in Canada as a whole (measured in terms of volume of product sales). From 1966 to 1981, for example, the percentage of farmers who sold from $50,000 to $99,999 of produce increased from 3.9 percent to 9.1 percent. Even more dramatically, the percentage of farmers who sold $100,000 or more of produce increased from 1.3 percent to 10.9 percent during this period.

It is clear from Table 4.13 that there were drastic reductions in farm population from the 1921-1941 period to the 1960s and 1970s. During the 1921-1941 period, most of Saskatchewan's small urban centres were at the crest of their viability and well-being. At that time there were enough people in rural Saskatchewan to support a wide range of businesses, services and amenities in most of these small centres. This has changed greatly as the rural population has declined and the transportation modernized (good roads and highways, together with fast cars and trucks).

Table 4.13

NUMBER OF FARMS, AVERAGE SIZE OF FARMS, FARM POPULATION, AVERAGE POPULATION PER FARM AND AVERAGE CAPITAL PER FARM, SASKATCHEWAN, 1911-1981

Year	No. of Farms	Average Size of Farms (acres)	Farm Population	Average Population Per Farm	Capital Per Farm
1911	95,013	296	361,037	3.8	$ 8,765
1921	119,451	369	538,552	4.5	13,814
1931	136,472	408	564,012	4.1	9,325
1941	138,713	432	514,677	3.7	6,459
1946	125,612	473	434,619	3.5	NA
1951	112,018	550	399,473	3.6	17,771
1956	103,391	607	362,231	3.5	NA
1961	93,924	686	305,740	3.3	30,497
1966	85,686	763	281,089	3.2	57,319
1971	76,970	845	233,792	3.0	71,354
1976	69,578	942	193,068	2.8	181,888
1981	67,318	952	187,163	2.8	465,976

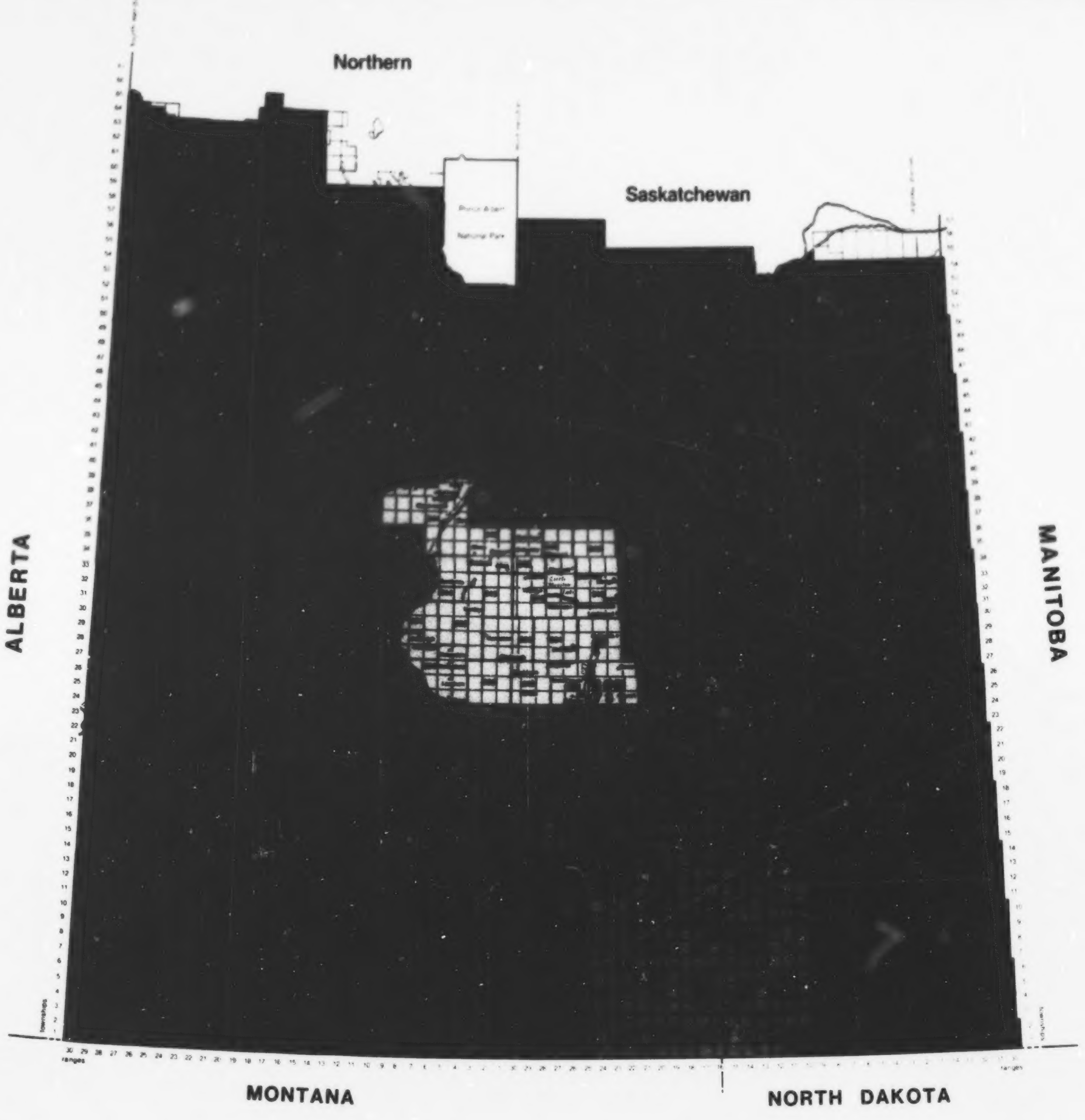
NA - indicates not available.

Source: Censuses of Canada.

Table 4.15 indicates one impact of these developments: the increasing urbanization of Saskatchewan. The table shows that the number of incorporated cities and towns has increased steadily since 1912, and the number of incorporated villages has declined steadily, starting in

SOUTHERN
SASKATCHEWAN

Map 3


Northern
Saskatchewan
Prince Albert National Park
ALBERTA
MANITOBA
MONTANA
NORTH DAKOTA
townships
ranges

CHANGES IN AVERAGE FARM SIZE BY CENSUS DIVISION 1961 - 1981

Legend

- ☐ Less than +20%
- ■ +20% to +30%
- ■ +31% to +40%
- ■ +41% to +50%
- ■ More than +50%

1981 Acres
1961 Acres

Saskatchewan
Rural
Development
Task Force 1984

1951. The population changes shown in Table 4.13 suggest that quite a number of the villages established in the 1921-1941 period may not have an adequate rural population base for long-term viability.

Table 4.14

NUMBER OF CENSUS FARMS, BY SIZE CLASS OF GROSS FARM SALES (CONSTANT $1975), 1966 - 1981, CANADA

	1966		1971		1976		1981	
	Percent of:		**Percent of:**		**Percent of:**		**Percent of:**	
Size Class of Gross Farm Sales (Constant $1975)	**Census Farms**	**Aggregate Gross Farm Sales**	**Census Farms**	**Aggregate Gross Farm Sales**	**Census Farms**	**Aggregate Gross Farm Sales**	**Census Farms**	**Aggregate Gross Farm Sales**
$50 - 2,499	21.4	1.2	19.0	0.8	20.6	NA	18.6	0.6
2,500 - 4,999	12.5	2.8	10.3	1.7	11.2	NA	9.8	1.0
5,000 - 9,999	18.9	8.3	16.6	5.4	13.6	NA	11.7	2.3
10,000 - 49,999	42.0	54.5	45.0	45.7	41.7	NA	39.9	28.3
50,000 - 99,999	3.9	15.8	6.4	19.2	9.3	NA	9.1	15.2
100,000 or over	1.3	17.4	2.7	27.2	3.6	NA	10.9	52.6

NA - indicates not available.

Source: Censuses of Canada.

Table 4.15

CITIES, TOWNS AND VILLAGES IN SASKATCHEWAN, SELECTED YEARS FROM 1912 to 1985

Year	Cities	Towns	Villages*	Total
1912	4	62	213	279
1921	7	78	337	422
1931	8	80	382	470
1941	8	82	385	475
1951	8	89	394	491
1961	11	112	366	489
1971	11	131	358	500
1985	12	141•	353•	506

* Includes resort villages.

• Excludes towns and villages in the Northern Administration District.

Source: Saskatchewan Municipal Directory for appropriate years.

The trend to increasing farm size (in terms of acres) appears to be continuing. Alternatives to expansion by adding acres include intensification on the existing land base by such possibilities as adding livestock enterprises, specialty crops, reduced summerfallow together with cropping intensification, or irrigation. Another option for some is off-farm employment on a part-time farming basis, discussed in the following section. The advantages of such alternatives include the following:

- underemployment of available farm resources can be reduced,
- it is not necessary to add high-priced land to the existing farm units,
- the income of the farm families can be increased, and
- the shift of population from the farm sector to urban centres or to other provinces can be reduced or, in some cases, even reversed.

The tendency in Canadian and Saskatchewan government policies and programs for agriculture has been to emphasize assistance to full-time, "bona fide" farmers. Another emphasis has been on the development of fairly large enterprises. This has been evident, for example, in FarmStart (now Agricultural Credit Corporation of Saskatchewan - ACCS). The basic philosophy of the ACCS and FCC has been to use subsidized loan funds to establish full-time farmers, with a fairly clear reluctance to assist part-time farmers. This has changed somewhat in the last two or three years. Now both ACCS and FCC are prepared to assist smaller operators if their proposals appear viable - even if they require some off-farm income in the initial years of their plans. The ACCS has also shifted from recommending programs to responding more to proposals put forward by applicants. The emphasis on viability is still considered to be a basic requirement.

It is obvious that a healthy, viable rural economy requires an adequate population base for the economic and social well-being of both the farm sector and the related urban centres. The Task Force believes that senior government policies and programs can have a major impact on the direction of future farm structural developments and the further development of both small and large urban centres. It appears that special emphasis should be given in government policies and programs to assisting smaller and beginning farmers, and to encouraging the increase in farm size by assisting people who are farming or are prepared to farm by employing some of the alternatives outlined above. The more successful government activities are in supporting economically sound smaller farming operations, the less pressure there will be for the very large farms to become even larger.

RECOMMENDATION

The Government of Saskatchewan should orient its farm policies and programs with an emphasis on the development of viable farm units; and the achievement of adequate farm incomes, and amenities and services in rural areas, by emphasizing assistance to small and beginning farm operators, and to farm operators who would like to increase their farming operations and income by means other than adding additional land.

CHAPTER IV

ECONOMIC DEVELOPMENT

PART-TIME FARMING

A trend of major importance in rural development is part-time farming. It relates to the well-being of the farming sector, the viability of many communities, the service sector, and the aspirations, wishes and needs of thousands of families - both farm and non-farm. Part-time farming is a phenomenon that is well established in virtually all parts of Canada. Basically, part-time farms are business enterprises operated in conjunction with other forms of livelihood.

Also important are hobby or recreation farms, but these are not the same as part-time farms. In general, hobby farms are small, recreation or leisure oriented units operated as a retreat away from urban environments to obtain qualities of life provided in a rural setting. Hobby farmers may also undertake farm-related activities to obtain tax concessions or to invest in real property outside of the city. In general the income earned from the hobby farms is of limited importance to the well-being of families involved in such activities. However, the psychic income achieved is considered a major benefit in many cases. If hobby farmers are defined as individuals with 150 or more days of off-farm work per year but with less than $5,000 gross sales, there are about 44,000 such farmers in Canada - about 3,000 in Saskatchewan (based on Statistics Canada data). It is estimated that there are about twice as many part-time farmers as there are hobby farmers in Canada. Statistics Canada indicated that in 1981 Canada had a total of 318,361 census farms, with 123,136 of these reporting off-farm work.

Part-time farm families have strong involvements in both farm and non-farm activities, but in most cases undertake farming to provide a significant portion of their total income. The income earned off the farm may be earned by the operator or spouse. In some cases, children also earn off-farm income which is contributed to the total family income. A key objective in these various arrangements is to achieve a satisfactory level of family goals, income, independence and quality of life.

Although part-time farming has been a characteristic of Canadian farming from the outset, it has increased in importance during the last several decades. The close relationship between farming and industries like local manufacturing, lumbering and the fur trade has been documented. More recently, off-farm income has been earned from such sources as urban jobs; farm custom work; employment in mining, tourism, fishing or forestry; services including plumbing, welding or electrical work; driving school buses; and construction of roads or buildings.

Part-time farming has become more feasible with increased industrialization and the availability of off-farm jobs in both urban and rural areas. Even in Saskatchewan, which has traditionally been viewed as "agricultural," there are off-farm job opportunities in most areas. In addition, the trend to reduced working hours per week, longer annual vacations, increased number of statutory holidays, and provisions like the 5-5-4 work arrangement, have facilitated the development of more part-time farming.

In Canada, there are about 125,000 farm operators engaged in off-farm employment, with about 63 percent reporting from 127 to 365 days of off-farm work per year. In Saskatchewan, the corresponding figures are about 21,000 and 52 percent. It is expected that by the year 2000 there will be 125,000 to 150,000 part-time farmers in Canada. Table 4.16 indicates the extent of part-time farming in Saskatchewan in 1970/71 and in 1980/81.

Table 4.16

OFF-FARM WORK BY SASKATCHEWAN CENSUS-FARM OPERATORS (12-MONTH PERIODS) IN 1970/71 AND 1980/81*

	1970/71	1980/81
Number reporting such work	19,926	20,914
Number reporting 25 or more days per year	15,852	17,957
Number reporting 97 or more days per year	10,727	12,795
Average number of days of off-farm work	128	147
Percentage of farm operators reporting such work	26	31

* Includes agricultural and non-agricultural work off the farm operator's unit.

Source: Census of Canada.

In 1981, about 13 percent of the off-farm work was agricultural (both in Saskatchewan and in Canada as a whole). Since 1946 the proportion of farm operators reporting off-farm work, and the average number of days of off-farm work reported have increased substantially in Saskatchewan. This is indicated clearly in Table 4.17. This reflects the increasing difficulty in establishing adequate farm units due to high capital requirements and the low net returns to farming relative to the cost of land and other production inputs. This has been especially evident during the last several years, in both Canada and the USA. In both countries, the difficult farming conditions in 1983 and 1984 have greatly increased the need for many farm operators and their spouses to seek off-farm income.

Table 4.17

AVERAGE NUMBER OF DAYS OF OFF-FARM WORK REPORTED BY CENSUS-FARM OPERATORS, SASKATCHEWAN, SELECTED YEARS, 1946 - 1981*

		Census Farm Operators Reporting Off-farm Work		
Year	**Total No. of Census Farms**	**Number**	**Percent**	**Average No. of Days of Off-farm Work**
1946	125,612	25,129	20.0	40.1
1951	112,018	18,655	16.7	75.6
1961	93,924	18,719	20.0	128.1
1966	85,686	23,444	27.4	110.7
1971	76,970	19,926	25.9	127.8
1976	70,958	15,975	22.9	143.0
1981	67,318	20,914	31.1	146.5

* Includes agricultural and non-agricultural work by the farm operators in the 12 months ending June 1 of the census years.

Source: Census of Canada.

Studies on part-time farming indicate that for some families it is a means of gaining entry into farming, for some it is a means of phasing out of farming, and for some it is a desired permanent arrangement. As in all farm situations, there is a need to adjust to the available labour supply, family labour cycle, income needs, and so on. Part-time farming, like part-ownership, is clearly an important adjustment vehicle that needs to be recognized in public policies and programs. This is especially true regarding part-time farming arrangements which are preferred by the families involved. Many part-time farms are larger and more productive than some full-time farms, and are established as stable, viable enterprises. Many large, commercial farmers also earn a considerable amount of income from off-farm sources.

Contributions of Part-time Farming

One of the main contributions of part-time farming is the enhanced economic and social well-being of the thousands of families involved. Especially important are the provision of higher incomes, and the enjoyment of having a farm operation. A part-time farm enables the operator and his/her family to allocate their labour and other resources to maximize their goals - in terms of both personal and production goals. Since this approach is common to how most people allocate their available resources, it is unreasonable to assume that part-time farmers are inefficient because they are not full-time farmers. In fact, in many cases a part-time farming arrangement is more efficient by allocating some resources to farming and some to the non-farming sector.

Many part-time farm families make significant contributions to the economic, cultural and social life of rural communities. They provide added buying power which helps local businesses survive; enlarge the population base needed to justify community services like schools, churches, recreation facilities and specialized services; and some provide specialized services in conjunction with their part-time farming operations. It is significant that many part-time farm families establish or maintain their homes on their farms. Part-time farmers may provide an important part of the solution to the depopulation which has become a serious problem in many rural communities during the last several decades.

In addition to serving as an important adjustment approach into or out of farming, part-time farming is at least a partial answer to the growing problem of very large farms becoming larger by absorbing surrounding small farms, and the development of what has been described as the trend to the holders of farms becoming a landed gentry with little possibility of new entrants. It has been suggested by a leading official in Canadian agriculture that ". . . the only way for a young person to get into farming is to inherit a farm or be a part-time farmer."

Some part-time farmers also contribute to the development of superior breeding stock or new crops since they tend to be less inhibited by tradition and are prepared to risk investments in such ventures. In some areas they also make an important contribution to an active land market. This can be especially important to retiring farmers.

Problems with Part-time Farming

Not all part-time farmers are successful. Neither are some full-time farmers. The management requirements and dedicated commitment to the enterprise are just as important in part-time farming as in full-time farming. If these are underestimated, the results can be quite disastrous - just as on a full-time farm. Poor management can result in undesirable farming practices, especially with respect to weed and insect control. However, a part-time farmer need not be any less efficient than a full-time farmer in this regard.

It is frequently suggested that part-time farmers do not pay an adequate share of taxes for such services as roads, schools and fire protection. This should not be a criticism of part-time farming, but of the defects of the taxation system. The Task Force has recommended in the section on local government finance that if all principal residences were assessed for municipal and school taxation, much of this problem would be solved. To the extent that this does not solve the problem of fair taxation of all farmers and rural residents, the appropriate measures should be taken in the assessment and tax provisions.

It has also been suggested that part-time farmers cause higher land prices. As indicated earlier in this section, part-time farmers can be an important aspect of the farmland market - especially to provide a market for retiring farmers who may wish to sell all or a portion of their farms. To the extent that more bidders may result in a higher land price, this is a reasonable expectation. However, there is no evidence to suggest that part-time farmers are willing (or able) to pay more than full-time farmers. It is reasonable to assume that both full-time and part-time farmers basically will bid on land in accordance with sound economic principles.

Public Policies and Part-time Farming

Many government programs and services are available to part-time farmers on the same basis as to full-time farmers. This is the case, for example, in Crop Insurance, the Western Grain Stabilization Plan, and extension and advisory services. However, there has been a strong tendency to develop policies to serve the hypothetical, average family farm or "bona fide" farmers. This has resulted in discrimination against individuals who find it more desirable or efficient to allocate some of their resources to farming and some to the non-farm sector. This has been especially discriminating against families in which some members devote all or virtually all of their labour to farming.

This has become increasingly difficult to justify, especially as part-time farm families have become a major, positive force in rural development and are making a contribution to agriculture which is just as great as, or greater than, that of many so-called "bona fide" farmers. As the Canadian Minister of Agriculture said in 1980, "We should not be preoccupied with whether a man is a full-time or part-time farmer. We should talk about the overall concerns of the small, medium and large farm." Many other leaders in Canadian agriculture have made similar statements.

The Saskatchewan Farm Ownership Regulations contain a definition of "farmer" which is in conformity with the view of the Canadian Minister of Agriculture quoted above, and which appears to be in harmony with the current farming structure. These regulations define "farmer" as a person, or the spouse of a person, who:

- spends a significant portion of his time engaged in farming;
- participates in both the management decisions involved in the operation of a farm and the physical labour required in carrying out the operation of a farm; and
- receives a significant portion of his income either directly or indirectly from the sale of farm produce.

This definition could be considered as a replacement for the outdated one in The Rural Municipality Act, and for purposes of the ACCS it could be adapted by adding limitations with respect to such criteria as off-farm income and net worth. This would provide the kind of flexibility required in the ACCS program. It would also provide entrepreneurs interested in farming with considerably greater opportunities to develop a wide range of farm development projects without being constrained by the historic concept of a bona fide or full-time farmer.

In Saskatchewan there is no discrimination against part-time farmers in such programs as Crop Insurance, the Livestock Investment Tax Credit Program, the Feeder Association Loan Guarantee Program, the Saskatchewan Hog Assured Returns Program, and the Prairie Livestock Drought Assistance Program. However, this is not the case in several other major programs which could be very supportive of and helpful to part-time farmers trying to establish viable part-time farms. For example, the Irrigation Assistance Program requires an applicant to be a bona fide farmer or rancher. This has normally been assumed to mean a full-time farmer or an operator whose principal or major occupation is farming. The Counselling and Assistance for Farmers Program is also available only to applicants whose principal occupation is farming.

The Agricultural Credit Corporation of Saskatchewan provides loans and related services only to applicants whose present or intended occupation is farming. The applicant's net worth cannot exceed $300,000 and the applicant's average non-farm income for the last three years cannot exceed $35,000.

The Farm Purchase Program (FPP), which was designed to assist small and medium sized farmers, is available only to bona fide farmers or applicants who will be bona fide farmers within five years after purchasing land under the program. In the FPP, applicants are permitted to have off-farm income up to $35,000 per year (operator and spouse) for the first five years. This will result in the awkward and potentially very difficult situation of what happens after five years. Will the part-time family still be able to meet its financial obligations? Will it be necessary to replace a secure off-farm income supplement with a risky, high investment livestock enterprise? Or will it result in a drastic drop in the family's standard of living? This program, which has succeeded in establishing many viable, small farms (with some off-farm income) could also be the cause of their failure. The Task Force believes that the FPP would be a sounder, more effective program if the five-year restriction on the opportunity to earn off-farm income was removed. This could be considered in conjunction with altering the amount of such income earned, to suit current economic conditions and policy objectives.

The Farm Credit Corporation of Canada has gradually altered its eligibility requirements from the early restrictions to full-time bona fide farm operators, to the current policy which provides for a five-year period to phase into full-time farming. The words "bona fide" have been removed from the legislation and there appears to be some latitude and judgment flexibility regarding off-farm employment - especially during the growing and harvest seasons. Although there is still a strong orientation to full-time farming, the direction of changes appears to be in harmony with the federal Minister of Agriculture's statement quoted above.

There has been much concern in virtually all areas of Canada regarding section 31 of The Income Tax Act as it affects part-time farmers. This section limits farm losses of part-time farmers to $5,000 per year which, during the initial years, or during severe climatic or economic conditions, is insufficient and places a heavy strain on savings, borrowing reserves or off-farm income. Section 31 has caused extreme development difficulties for many part-time farmers, and has forced some of them into insolvency. Because of the importance of part-time farm families in rural development, this section of The Income Tax Act has also been a deterrent to more effective development of the rural economy of Canada.

The basic problem is that a farm family which earns some of its total income from off-farm sources can be deemed non-agricultural if net farm income declines - as it did in many areas of Canada in 1983 and 1984. This resulted in serious tax consequences for many part-time farm families. The concern is not for hobby farmers, but for legitimate farm operations which are being operated with the prospects of profitability and viability in conjunction with other sources of income.

The Deputy Minister of Agriculture in New Brunswick expressed the views of many farm leaders recently when he indicated that part-time farming was an important element in his province's industry. He stated that, "I would be missing some of my better civil servants if they didn't have to work to support their farm operations." Saskatchewan Agriculture Minister, Dr. Lorne Hepworth, recently told the House of Commons Committee studying "Tax Issues in Agriculture" that, ". . . section 31 discourages off-farm work where income generated may cause Revenue Canada to categorize the individual as a part-time farmer for tax purposes." This is a disincentive for both individual initiatives and activities, and rural development.

The Task Force believes that part-time farmers will provide a significant portion of the total agricultural production in the future, that they will make a substantial contribution to rural development in Saskatchewan, and that their contribution to a healthy tenure system will increase. Also, part-time farming is expected to provide a major adjustment vehicle to help farmers get established in farming; to help overcome problems of low incomes, limited capital or excess labour; and to assist in the process of retiring from farming. The Task Force also concluded that many part-time farmers appear to be in a strong position to undertake high risk enterprises, absorb economic shocks, and meet their financial obligations. In addition, they are providing a positive influence on the tenure system.

RECOMMENDATION

The Task Force recommends that the Government of Saskatchewan assist part-time farmers in establishing farms by basing eligibility for public programs, including credit and other financial assistance programs, on the needs of the farm unit being developed rather than whether the operator is a part-time or full-time farmer. The Task Force recommends that eligibility for public programs contain restrictions with respect to the applicant's net worth, amount of off-farm income and commitment to the farming enterprise in terms of physical and managerial involvement, and possible residence on the farm being assisted. This could have a major, positive effect on developing and maintaining a strong farming sector.

The Task Force also recommends that the Government of Saskatchewan urge the Government of Canada to eliminate the income tax provisions which discriminate against part-time operators.

CHAPTER IV

ECONOMIC DEVELOPMENT

NORTHERN AGRICULTURE

An important development opportunity that would benefit much of Saskatchewan, in addition to the local areas involved, is the development of agriculture and related activities in northern Saskatchewan - areas like the Saskatchewan River Delta and the land around Green Lake. There are also several other areas in northern Saskatchewan with substantial agricultural development opportunities which could be exploited. Development in such areas could provide major benefits to the local people, including Indians, natives and northerners, who would be interested in becoming involved in activities related to agriculture. In addition, the development should result in positive benefits for activities as in tourism, non-farm industry and wildlife, since development would result in things like improved roads, modern communications systems, and supporting commercial services.

The Saskatchewan River Delta in the Cumberland House area, and the large tracts of arable land surrounding Green Lake are two of the most productive but underutilized agricultural areas in the entire province. The Saskatchewan River Delta is comprised of rich, level, highly productive, stone-free soil. The undeveloped areas are covered with willows or tree growth (mostly unmarketable) which together with the large naturally occurring meadows would be easy to clear and break. It is not generally realized that the combination of rich soil, long summer daylight hours and adequate rainfall permits the production of virtually everything from tomatoes and corn to cereal grains and forage crops in the Delta area. The Hudson Bay company demonstrated the productive potential of this area as early as 1774 at the Cumberland House Trading Post. That was the first farm in what is now the province of Saskatchewan. They successfully grew wheat, oats, and barley long before our faster maturing varieties were developed.

The development potential of northern agriculture has been evaluated in several major studies. The Saskatchewan Department of Agriculture, for example, has undertaken numerous evaluations of the feasibility of agricultural production in the Green Lake and Saskatchewan River Delta areas and has concluded that there are major opportunities which should be economically viable if adequately developed. This has been substantiated by the success of the small scale farming operations at both Meadow Lake and in the Delta area.

In May, 1969 a major study to evaluate the development potential of the Delta area was completed under a joint federal-provincial ARDA project. It took about six years to complete this study.* This evaluation was directed by the Saskatchewan River Delta Development Committee, which included representatives from several Government of Saskatchewan departments, the University of Saskatchewan and the local area. This study identified many development opportunities which are reflected in the recommendations of the final report, which were stated as follows:

---

* "Saskatchewan River Delta Area - An Evaluation of Development Potential," Government of Saskatchewan, Regina, May, 1969.

1. It is recommended that development of the area be undertaken primarily to broaden the economic base of livelihood for the large population in the Saskatchewan River Delta community. At present the population is about 1,100. Development is needed to generate income locally, to support needed services including education, health, recreational and other needs.

2. The modified engineering plan outlined in Map No. 1 is recommended as the most desirable development plan. This would provide a substantial agricultural base to generate local revenues and to support a service centre, and would provide substantial employment opportunities in both agricultural and non-agricultural pursuits. The plan should be viewed as a multi-use project with the primary objective of enlarging the local economic base, rather than as an expansion of the agricultural base in Saskatchewan per se.

3. The economic report shows total capital development costs of about $10.5 million to be a sound investment. After installation of main dykes and drains, the development of 120,000 acres that would be devoted primarily to agriculture should proceed. In conjunction with this, an area of about 400,000 acres, consisting of the Cumberland Marshes and the stagnant bog area south of the Birch River, and associated forest stands, should be developed as a renewable resource management area. These developments will provide considerable employment and income for local people, reduce social welfare costs, and develop and preserve a substantial recreation and wildlife area.

4. Consideration should be given to any existing commitments which may require compensation for displaced uses and improvements.

5. The need for and location of a service centre should include the early selection of a suitable site.

6. An experiment station should be established to provide information for development of an agricultural program in the area. This should be combined with further more detailed soil surveys in the areas selected for agricultural use.

7. It is recommended that a more active program of forestry development be undertaken, both to better utilize existing tree growth and to develop a sustained forestry enterprise in selected areas.

8. A fisheries development and management plan should be undertaken to maintain and, to the extent possible, expand both the commercial and sport fishing activities that exist in the area. The potential for development of large scale fish farming operations appears favourable and should be further investigated.

9. Several of the recommendations in the report on recreation potential in the area should be given early consideration. These include the development of a historic site at Cumberland House, picnic and camp sites between Squaw Rapids and Cumberland House, controlled forest utilization along the Old Channel and highway to maintain scenic values of the route, and the extension of highway and canoe routes.

10. To enable the people in the Cumberland House community to earn a more adequate living, a more intensive program of education and training at all levels and for a wide variety of vocations or professions should be taken in the area. This should include a more intensive training program in vocational agriculture.

11. Early consideration should be given to the provision of special credit programs for the people of Indian ancestry in the Delta area, to enable them to undertake economic development projects. An adequate credit program should include greater access to normal credit channels as well as special government programs which may be required to meet the needs of supervision, collateral deficiencies and so on.

12. Further investigation and study is required as to the type of development authority to employ in undertaking a major development plan and community action in the area. There is a wide range of alternatives that should be considered, including the organization of a strong local government, close supervision and direction by senior governments, a special crown corporation, private agencies, or possibly some combination of these. Adequate local government and local involvement will be an important facet in developing and implementing sound development plans.

13. Further study should be undertaken regarding a desirable settlement pattern, land allocation policies, and the provision of necessary social services such as schools and hospitals. The major consideration should be the provision of opportunities for local people.

14. Careful study should be undertaken to allocate the development costs between the federal, provincial and local government bodies, and financial arrangements should be carefully planned in advance for any major development undertaken. The program should employ capital available through federal cost sharing arrangements.

On the Manitoba side, the Delta area has been developed as the Pasquia project. Although it is primarily an agricultural project, it also has some multi-use aspects. By the early 1960s, the Manitoba project had already demonstrated clearly that it was feasible to develop viable farms in the area and that crops like wheat, flax and barley could be successfully grown. The establishment of many attractive farmsteads in the area provided evidence of the success and further development potential of farming in the area.

The Green Lake area is also relatively level, with few stones. It usually has adequate moisture, and although the soil isn't as naturally productive as in the Delta area, it has been amply demonstrated that, given proper management, it is capable of producing high yielding cereal grain and forage crops including corn. This area does not have as many frost-free days as Cumberland House, but this does not preclude the production of a wide range of agricultural products. Although it has been demonstrated that cereal grains can be successfully grown in these areas, the relative isolation of these areas makes them more suitable for intensive livestock production. In support of this, these areas have a combination of large tracts of undeveloped land, ample water supply, natural shelter and high carrying capacities (ranging from 1 to 2.5 acres per animal unit with good management on seeded pastures). These northern areas could become a major component of the Saskatchewan livestock industry, and could help offset the shrinking pasture acreage and declining cattle population in the more southern areas of the province.

There are a minimum of about 1,000,000 to 1,500,000 acres of potentially productive land in these areas. Based on five to six quarter sections per farm, which under continuous cropping would approximate the productive capacity of about three sections in many parts of the south, it is estimated that in excess of 1,200 new farms could be established north of Township 51.

It is recommended that a substantial portion of these lands be cleared, broken and worked down ready for seeding prior to being sold and/or leased to private operators. It is suggested that this land development work be undertaken by the Government via the tendering process. The costs involved could be fully recovered from the sale of the land, or from future earnings generated by the land developed. The increased tax base plus the economic spin-offs from the establishment of about 1,200 new farms would benefit both the public and private sectors. To enable new operators to become established, a policy combining part ownership and part leasing should be considered as required.

Since the lands in the northern areas under consideration are all Crown lands, it has been proposed that the titles could be pledged as private sector security for receipt of development financing and so eliminate the necessity for public funding. Vast areas of Crown land could be converted into collateral for development funding. Preliminary discussions with private sector financial organizations have indicated strong support for such an approach. The federal government has also expressed interest in the eventual funding of private purchasers should such a project materialize. It appears that the most important requirement for getting this enormous economic activity underway is the decision to proceed.

The main objectives in proceeding with the development of agriculture in the northern areas include the development of a sound local economy; reduction of the heavy dependence of many people in these areas on social welfare; and the provision of local employment opportunities in agriculture, forestry, land reclamation or development, tourism and so on.

The Task Force is aware of the critical need for enhanced economic and job opportunities for the people in the areas under consideration, and recommends that any development plans include careful consideration of these needs.

RECOMMENDATION

The Task Force recommends that the Government of Saskatchewan proceed with the development of more agricultural activities in northern areas like the Saskatchewan River Delta and Green Lake, to provide a stronger base for both the economic and social development in these areas.

CHAPTER IV

ECONOMIC DEVELOPMENT

SECONDARY INDUSTRY

Although there are many perspectives to community viability such as financial, social and cultural, it is often economic viability that is the most important consideration in assessing a community's future. There normally have to be employment and income opportunities either within the community or within the region to sustain a community's population.

Where a community achieves a strong economic base, it usually also develops in terms of social services, cultural facilities and general infrastructure. The reverse does not necessarily follow. For example, the presence of hospitals and recreation facilities will not ensure economic growth and stability.

If agriculture does not impact positively enough on a rural community economy and its commercial sector, manufacturing or processing may offer a rural community an alternative to its reduced function as a rural service centre. However, manufacturing has not generally fared that well in this province. In fact, Saskatchewan is one of the least industrialized provinces in Canada, on the basis of manufacturing employment and establishments. Table 4.18 shows Saskatchewan's position relative to neighbouring provinces and to Canada.

Table 4.18

NUMBER OF ESTABLISHMENTS AND EMPLOYMENT IN MANUFACTURING, IN CANADA AND THE PRAIRIE PROVINCES, 1982

	Employment	**Number of Establishments**
Canada	1,708,850	35,834
Manitoba	53,738	1,279
Saskatchewan	20,115	749
Alberta	79,701	2,490

Source: Statistics Canada, Cat. 31-203.

Current Situation

The food and beverage sector is the largest manufacturing sector in Saskatchewan. It consists largely of bakeries, meat plants and soft drink manufacturers. The machinery industry consists principally of agricultural machinery manufacturers. Agricultural machinery manufacturing was one of Saskatchewan's brightest stars in the 1970s. It recorded remarkable gains in sales and employment. However, in the last three years the industry has suffered as net farm income declined and machinery purchases dropped.

The printing and publishing industry consists largely of daily and weekly print publications for local sales. Metal fabricating has also performed reasonably well in Saskatchewan. Wood industries are largely characterized by saw mills. This industry, after strong growth in the 1970s, declined in the 1980s as housing demand dropped.

The manufacturing activity is heavily concentrated in the province's larger urban centres. Regina and Saskatoon account for 60.3 percent of total manufacturing employment. Those communities with 5,000 people or less account for approximately 20 percent, or slightly more than 4,000 employees. These smaller communities provide employment in manufacturing for slightly more than 4 percent of the existing rural labour force. Although these statistics appear rather dismal for rural manufacturing, some rural communities have achieved some real success stories, especially in machinery manufacturing.

Table 4.19 shows that a total of 199 rural communities with populations of 5,000 people or less have some form(s) of manufacturing or processing. The list in Table 4.19 does not include all manufacturing in rural Saskatchewan. For example, there are numerous small manufacturing businesses in rural Saskatchewan, such as casket manufacturers, honey processors and egg carton manufacturers. They are generally small employers, rarely employing more than five people. Often they are only servicing a local or regional market, as in the case of bakeries or printers. Some agricultural manufacturers and metal fabricators have been particularly successful in entering export and overseas markets.

As a host for industrial development, rural Saskatchewan has both strengths and shortcomings which need to be considered when attempting to select and attract a suitable industry for a rural location. The main strengths include the following:

- Land costs are fairly low.
- The quality and availability of labour is usually very good.
- Labour rates are relatively low in rural communities.
- Employee job satisfaction tends to be high.
- Industries in small communities become an integral and valued part of the community.

Table 4.19

TYPES OF MANUFACTURING INDUSTRIES LOCATED IN RURAL COMMUNITIES, SASKATCHEWAN, 1984

Manufacturing/ Processing Industries	Community Population						
	Under 99	**100-199**	**200-499**	**500-999**	**1,000-1,999**	**2,000-2,999**	**3,000-4,999**
Agricultural Implements	17	8	17	17	10	14	6
Bakery Products	0	0	0	10	18	11	7
Commercial Products	0	0	1	5	11	12	8
Ready Mix/Aggregate	0	0	1	9	16	6	10
Meat Products	2	4	20	19	15	7	6
Machine Shops and Metal Fabrication	1	1	1	4	2	2	2
Seed Cleaning	0	0	0	1	0	0	2
Alfalfa Dehy./Pellets	0	0	3	3	1	1	1
Flour/Cereal	0	0	0	0	0	0	1
Livestock Feed	0	0	0	0	1	1	1
Transportation Equipment	2	2	1	4	4	2	3
Wood/Lumber Products	2	2	6	5	2	2	3
Oil Field Equipment	0	0	0	0	0	1	1
Textile/Clothing	1	1	1	0	1	0	1
Number of Communities with Manufacturing/Processing Industries (199)	22	22	50	50	35	15	7

Source: Saskatchewan Manufacturers' Guide, 1984.

There are also constraints to industrial development in rural Saskatchewan. The main ones include the following:

- Small centres are seldom considered a suitable location by established firms and, as a result, new development projects must come mostly from within the community.
- Manufacturers or processors in rural locations must travel to a larger centre for most of the goods and services they require.
- As firms grow, there is usually an increased need for highly qualified management staff with specialized skills, and individuals with such skills may be reluctant to locate in small communities.
- Financial assistance, particularly for debt financing, is more difficult to obtain, particularly for fixed assets. This is due in part to the lack of alternative uses for the facilities should the business fail.
- For most products there is not a sizeable local market, resulting in higher transportation costs.
- Small communities often have difficulty in meeting the needs of industry in terms of infrastructure and housing.
- Utilities such as power, natural gas, water and telephones may require significant expansion or upgrading.
- Large firms can experience a reluctance by individuals to accept supervisory positions because this may require supervising friends and relatives.
- Current property assessment procedures often mean that taxes paid by businesses in small urban centres are higher than for equivalent facilities in cities. Furthermore, business taxes in rural municipalities tend to be even higher.

The Role Of Government In Industrial Development

Industrial development in the form of manufacturing and processing emanates largely from individuals and corporations identifying opportunities and taking appropriate follow-up measures.

Senior governments have responded with various types of support for such things as research and development, establishment costs and market development. By their nature, the programs of senior governments must generally be made available to all within the industry who meet the program requirements. In virtually all cases the programs are developed for universal application. This implies that each program has been developed with the notion of each community potentially receiving assistance. Since the likelihood of each of the approximately 500 centres obtaining an industry is low, government initiatives are diluted in their impact accordingly.

With the exception of some of the Saskatchewan cities and a few other progressive communities, local government has taken a rather passive role in industrial development. This is unfortunate, as the development of either new commercial or manufacturing establishments would have a positive impact on the community's assessment base, and thereby on the community's economic viability. If there has been a failure in the development of economic programs or community development programs, it has been their implementation. The Task Force concluded that in general rural Saskatchewan does not have effective vehicles or organizations to make the maximum use of programs and services that are available. Generally that responsibility has rested with municipal councils and the community administrators, or individual entrepreneurs and business people. In most cases small communities are not organized and not capable of pursuing economic development.

The chapter on Local Government suggests that a structure to facilitate greater inter-local government co-operation or to provide for larger economic units would be desirable. This has strong implications for the economic and industrial growth of rural communities. It is important for local governments to take responsibility for and provide leadership in the growth of their communities. It is the local leaders who best know the strengths of their communities and who can identify and encourage the talents and abilities of the people within them. Local governments should be in a strong position to encourage and assist both community and area development corporations, which are discussed in Chapter V.

The development and financing of industrial parks in rural Saskatchewan is a difficult burden for local communities to undertake by themselves. SEDCO, at one time, played a role in industrial park development and it is suggested that the level of demand for assistance of this kind and the means of providing such assistance be re-examined.

The Case For A Major Development Corporation

There is little doubt that Saskatchewan's small and widely dispersed population is one of the significant deterrents to the growth of industry. Ontario and Quebec, by comparison, automatically provide significant markets for any new enterprise and they act as a "centre of gravity" for further economic growth in Canada.

In Alberta we have witnessed similar growth effects, although on a smaller scale. The growth of Calgary and Edmonton has achieved a level which provides a very substantial market. The growth of these two cities has, in general, not been at the expense of the rest of the province. Smaller cities have also had good growth and even isolated communities and rural areas have, on average, recorded a modest population increase.* The extensive in-migration to Alberta from other parts of Canada has been a major growth contributor. By contrast, in Saskatchewan the modest growth of Regina and Saskatoon has been largely a population shift from rural areas.

For rural development to take place, city growth and development must also occur. It is important to have economic development policies which encourage both city and rural growth. The Task Force believes that policies to simply divert economic activity from city to rural areas should be avoided. The objective should be to provide economic stimulus to the entire province with some safeguards or incentives in place to ensure that a reasonable amount of economic growth occurs in rural Saskatchewan.

Examples such as the farm machinery and electronics industries illustrate that Saskatchewan has the capability to generate indigenous industries, and in time, some of these may grow to become very major corporations. In contrast, Saskatchewan has had limited success in attracting major companies, from elsewhere, to locate a major part of their operations here.

There are only modest reasons why most corporations would consider locating a manufacturing or processing facility here. While the province has raw materials and good employable people, as well as a desirable level of services and infrastructure, these strengths are not enough. Two major factors of concern to industrialists are capital and markets. Not infrequently industrialists who are looking to expand or even relocate multi-million dollar projects are only prepared to do so if they can find a joint venture partner prepared to make a substantial investment. Saskatchewan has had a limited capacity or inclination to react to such proposals.

In the past there have been times when the Government has been requested to be an equity participant in some enterprise, and in a few projects this has taken place through SEDCO and/or the Crown Investments Corporation. While some of these projects may be considered reasonably successful, the Task Force believes that government agencies are not well suited to this purpose and at best are an awkward partner. For example, when SEDCO takes an equity position, it must usually provide some of the term financing as well. This places SEDCO in the position of wearing two hats - the part owner and the lender. This situation seldom makes for good relations with the private sector partner and is not attractive to other financial institutions whose participation may be desired.

In Alberta a somewhat different approach has been used. Alberta companies such as Nova, An Alberta Corporation and Alberta Energy and Steel are examples of corporations initiated by the provincial government, but largely funded by the sale of shares - first to Alberta residents and subsequently on the open market. The Province also acquired and continues to hold a portion of the shares issued. Initially these companies were started with some fairly specific projects in mind. For example, the formation of Nova, which was formerly Alberta Gas Trunk Lines, related to pipeline construction. Nova and other similar corporations have become very large conglomerates with broad interests, including resource development and manufacturing. These Alberta corporations are not restricted to operations within Alberta, although their contributions to the Alberta economy have been immense. It is important also to recognize the very major benefits which derive from the in-province head office establishment of these corporations in terms of management skills, overall employment and financial activity.*

---

* Based on a Paper by R. Blake, Meeting of Canadian Association of Geographers, University of Regina, 1977.

Saskatchewan's recent success in offering bond issues of both Saskatchewan Power Corporation and SaskOil are indications that Saskatchewan people are interested in investments in their own province.

It is generally recognized that Saskatchewan residents are cautious investors and are inclined towards investments like savings accounts, guaranteed investment certificates and RRSPs. The result of this kind of financial management is that the funds accumulated and invested by Saskatchewan people are usually placed in the hands of out-of-province financial institutions, and the subsequent use of that capital for economic activity and growth beyond provincial borders. There appears to be a clear need for more entrepreneurial activity in the form of major corporations within Saskatchewan which have the means and ability to attract investment from Saskatchewan residents for reinvestment in suitable industrial and commercial projects within the province. Such developments could relate, for example, to the fertilizer industry, edible oils, starch production and meat packing.

A corporation of this kind might undertake certain projects on its own or through subsidiary companies. However, the Task Force believes that the greatest opportunity would be in the area of joint ventures with other sizeable companies who have established production and marketing expertise and who are seeking a partner for both financial support and for risk sharing. The corporation would be receptive to approaches from other firms, and would be proactive in identifying opportunities and seeking participants for projects in Saskatchewan. Potential projects to consider would include starch, canola crushing and refining, malting, canneries, sugar refining, iron ore reduction and particle board manufacturing.

It is suggested that the potential for success of this type of corporation would relate very much to its ability to convey to the public the exciting prospect for individuals to invest in the development of their province, and at the same time portray and implement a solid, competent, business approach which inspires and largely assures a successful and profitable operation.

---

* Nova has published a booklet outlining the company's origins and corporate history. This publication is available from: Nova, An Alberta Corporation, P.O. Box 2535, Postal Station M, Calgary, Alberta. T2P 2M6

This could be done by having one of Saskatchewan's existing successful Crown corporations, with its established management staff, operational procedures and financial base, become the nucleus for the new corporation. This would require conversion of an existing Crown corporation to a public company which would offer shares to the public. The Government could initially, at least, acquire and retain a substantial block of shares in the new company and new funds could be raised by issues of both common and preferred shares. Such measures should not be viewed as a means to obtain privatization of a Crown corporation. Rather, the objective should be to arrange the share structure so that a mixture of public ownership and private share holdings by a large number of Saskatchewan residents would be achieved and have broad acceptance.

The general concept is that a very large pool of economic investment capital could be raised - perhaps in the order of $100,000,000. A balanced portfolio of reinvestment would be desirable, and the corporation should be prepared to make some large individual investments. In this proposal, a currently successful Crown corporation would be required to expand and diversify and to be a risk taker into new ventures.

Provincial Government Programs

Chapter V deals with community development corporations and area development corporations. In recommending the use of such vehicles for rural development, the Task Force recognizes that they are the type of organizations which should and will develop gradually. They are not expected to provide immediate rural revitalization.

In the interim, the provincial government should consider a refocus of existing programs and services into a more proactive approach to rural development. Economic development in rural areas has been slow and less than considered desirable. Rural dialogue has tended to focus on negative rural circumstances which have resulted in a somewhat negative investment image. However, there have been some real success stories with rural entrepreneurial development. Also, rural Saskatchewan offers a lifestyle that can be an attractive alternative to a city environment. Therefore, the Government could consider a Rural Option Program or Emphasis which would facilitate the co-ordination of existing government programs and services with the addition of some new initiatives that would address rural economic development in a more proactive manner. There could be complementary initiatives in the areas of cultural and recreation programs in support of the development of a Saskatchewan rural option and lifestyle.

A significant factor that can provide a comparative advantage to a rural location is the cost of industrial land. At one time SEDCO was an active developer of industrial land. In cities, the municipal governments or the private sector can assemble and develop industrial land. However, this is not the case for rural communities. On the basis of identified demand, SEDCO could play an important role with rural industrial communities in developing industrial land.

A Rural Option Emphasis

The suggested emphasis is in part a "repackaging" of existing programs, but with some refinements to accommodate rural needs and conditions. The objective is to put in place a delivery system tailored to rural Saskatchewan. The Community Economic Development Program now in place is seen as a very positive initiative and could from the basis for a broader and more concerted rural development program.

The Task Force received indications that people in rural communities are frequently unaware of what programs are available and, perhaps to an even greater extent, have inadequate knowledge of the specific content and application of such programs. For example, the Venture Capital Program does not appear to be widely understood and many are unaware that it applies not only to manufacturing, agricultural processing and tourism projects, but also to new commercial services in communities below 5,000 in population. This feature may be an effective incentive for investment in rural commercial services such as a small shopping mall or the establishment of commercial or professional services.

In the area of professional services, communities and regions could develop their own enticement programs with assistance under the Community Economic Development Program. For example, it could be possible to assure a new lawyer or accountant a substantial portion of his/her practice through community support.

The essential elements of the Rural Options Program or Emphasis suggested include the following:

1. A Rural Enterprise Development Program to emphasize and promote rural industries through existing programs such as Fixed Rate Financing, the Venture Capital Program, Aid to Trade, Industrial Incentives and Business Information Counselling Service.

2. A program to encourage rural procurement and sourcing. This should include encouragement to rural producers to act as suppliers to government and Crown corporations, and as sub-suppliers to manufacturers in cities. Secondly, it should encourage government and industry to look to rural manufacturers for a portion of their requirements.

3. Certain programs could be modified to provide slightly higher incentives or benefits in rural areas. This would be in recognition of the competitive disadvantage often experienced by rural industries.

4. The program would stress the rural option, creating a more positive image of rural Saskatchewan as a place to travel and do business. The existing Community Economic Development Program could be the basis for, or an integral part of, this program.

5. Many of Saskatchewan's rural areas have strong potential for tourism development. The distinct characteristics of places like the Saskatchewan Rivers Heritage Area, The Qu'Appelle Valley, The Great Sand Hills and parts of the South and Southwestern Grasslands could enable them to become attractive and desirable places for vacation or pleasure travel. A recent Canada/Saskatchewan Tourism subagreement for substantial funding will provide encouragement. However, the recommended development strategy has placed emphasis on development in the Regina-Moose Jaw, Saskatoon-Tipperary and Lake Diefenbaker areas. Additional funds for other, more rural areas may be necessary to stimulate development.

The scattering of a variety of small industries throughout Saskatchewan is ample evidence that many types of enterprise can be successful in rural Saskatchewan. Development and assistance programs could emphasize the opportunities for commercial and industrial enterprises which are most appropriate for particular regions of the province. The following are examples of regions which, by virtue of particular resources or activities, offer associated opportunities:

Lloydminster/North Battleford - Heavy Oil
Meadow Lake/Hudson Bay - Forest Industry
Esterhazy/Saskatoon (Potash Belt) - Mining
Outlook - Irrigation
Northeast Saskatchewan - Canola Crushing and Refining
Southern Border - Coal

The appropriate government departments could develop informational and educational seminars for delivery to businessmen and to the public in rural areas which pertain specifically to the kind of opportunities which exist in their regions.

Agricultural Processing

Three quarters of Saskatchewan farm cash receipts come from cereals and canola, with livestock representing approximately an additional 12 percent. Saskatchewan's strong dedication to wheat production, and its high degree of adaptation to dryland conditions, makes it difficult to change the present system. In addition, Canada's transportation and feed grain policies have favoured the production of grains and oilseed for export markets and the development of the livestock industry in eastern Canada. The result is that Saskatchewan is mainly an exporter of unprocessed agricultural products. The province has had minimal diversification into specialty crops under dryland conditions, and efforts to identify, produce, and process high value crops under irrigation have had only modest results. Cereals and forages continue to be the major irrigation crops.

With farm production and the subsequent disposition of the products being so fundamental to economic development, it is important for Saskatchewan to address all aspects of the potential for value added processing. To date, major research and development thrusts appear to have occurred mainly at the production level. When examining Saskatchewan's position in the food processing industry, relative to other provinces, it is apparent that more should be done. Food processing is already Saskatchewan's largest manufacturing industry. Table 4.20 and Figure 4.8 give an indication of the extent and geographic distribution of food processors within Saskatchewan. Table 4.21 reflects the extent to which Saskatchewan processes its agricultural products, compared to Manitoba and Alberta.

Table 4.20

SASKATCHEWAN'S FOOD INDUSTRY BY CITY AND RURAL LOCATIONS

Industry	**City**	**Rural**	**Total**
Large Bakeries	3	-	3
Small Bakeries	31	48	79
Large Meat Slaughtering/Processing	5	-	5
Small Meat Slaughtering/Processing	8	58	66
Small Meat Processing (Only)	1	15	16
Small Slaughtering (Only)	-	9	9
Poultry Processors	1	1	2
Dairy Processors	3	1	4
Oilseed Processors	1	1	2
Large Flour Mills	3	1	4
Small Flour Mills	1	3	4
Alfalfa Dehydrators	-	7	7
Other Food Processors	37	6	43
Total	94	150	244

Table 4.21

FARM CASH RECEIPTS VS. FOOD AND BEVERAGE PRODUCTION, PRAIRIE PROVINCES, 1982

	(1) Farm Cash Receipts	**(2) Value of Food and Beverage Shipments**	**Percent (2) of (1)**
		($ Millions)	
Manitoba	1,685.0	1,519.8	90%
SASKATCHEWAN	3,921.5	898.9	23%
Alberta	3,813.9	3,541.3	93%

Source: Statistics Canada.

Figure 4.8

LOCATION AND NUMBER OF RURAL FOOD PROCESSORS IN SASKATCHEWAN

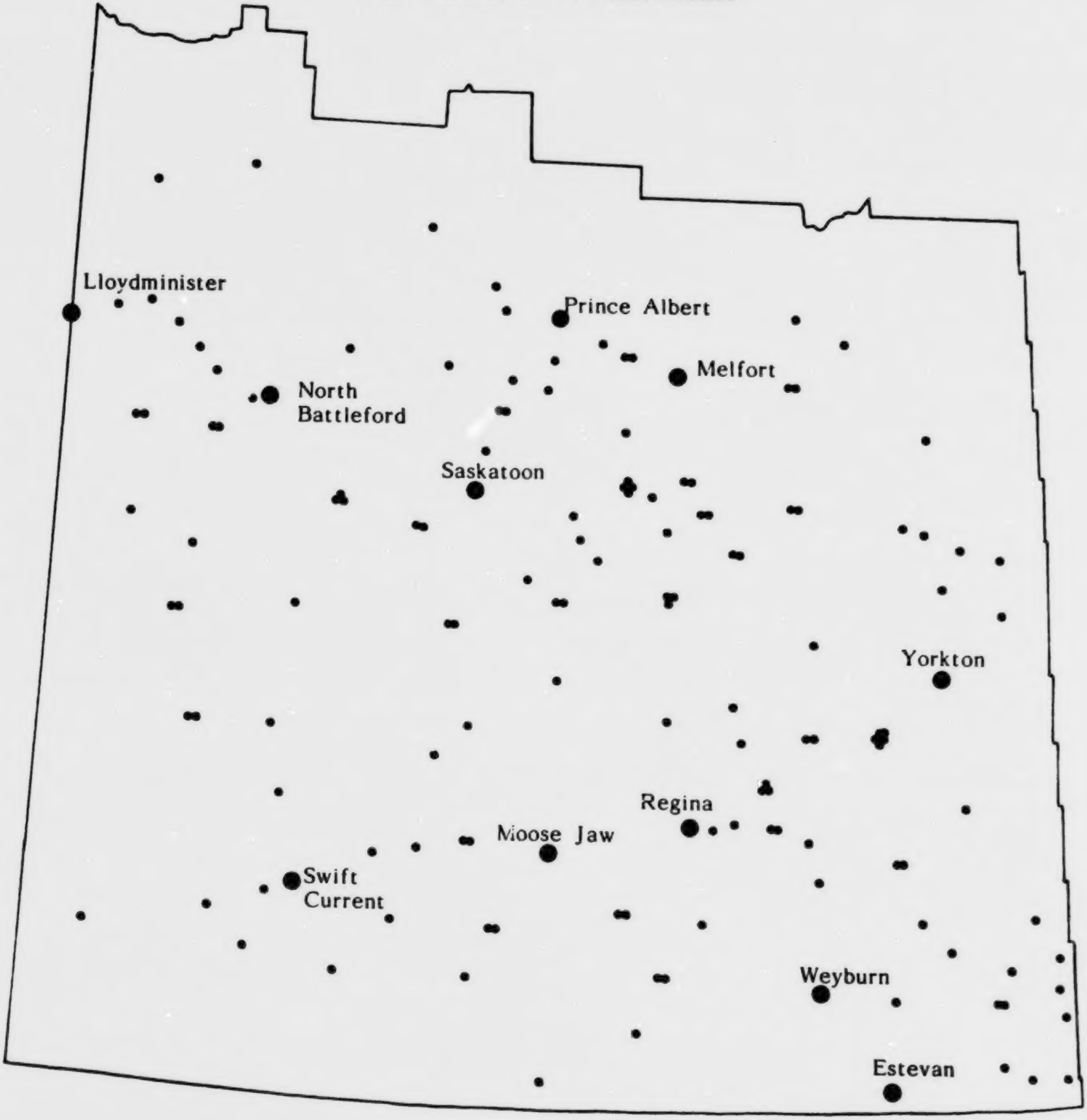

Lloydminister
Prince Albert
Melfort
North Battleford
Saskatoon
Yorkton
Regina
Moose Jaw
Swift Current
Weyburn
Estevan

Table 4.22 indicates the main areas of food processing strength in Saskatchewan and Canada from 1950 to 1980. The decline in the number of dairy processing and baking establishments during this period reflects a major restructuring of these industries. Meat processing has grown steadily during this period, in both Saskatchewan and Canada as a whole.

Table 4.22

NUMBER OF FOOD PROCESSING ESTABLISHMENTS, 1950 - 1980, SASKATCHEWAN

		Canada	**Saskatchewan**
Milling	1980	N/A	2
	1970	37	3
	1960	58	7
	1950	118	N/A
Baking	1980	1487	64
	1970	1921	97
	1960	2631	100
	1950	2608	83
Oilseed Processing	1980	10	2
	1970	10	2
	1960	11	1
	1950	15	2
Dairy Processing	1980	456	15
	1970	880	39
	1960	1818	63
	1950	1839	66
Meat Processing	1980	547	39
	1970	453	21
	1960	210	10
	1950	157	8

Source: Statistics Canada, Catalogue numbers 32-215, 32-203, 32-209, 32-221.

Table 4.23 shows the gross value/capita of food and beverage production, expressed in constant 1980 dollars, for Alberta, Saskatchewan and Manitoba between 1950 and 1980. During this period Alberta experienced an average annual growth rate of 2.3 percent, while Saskatchewan and Manitoba both experienced growth rates of 1.8 percent. This means that Alberta achieved a considerably greater growth rate per year than Saskatchewan or Manitoba during this 30-year period.

Table 4.23

GROSS VALUE/CAPITA OF FOOD AND BEVERAGE INDUSTRIES, PRAIRIE PROVINCES

(1980 Constant Dollars)

Year	Alberta	Saskatchewan	Manitoba
1950	$ 646	$487	$ 790
1960	687	466	770
1970	1015	588	1053
1980	1368	801	1291

Source: Statistics Canada (31-209, 31-203).

To provide an assessment of the rate of development in urban versus rural locations, gross value/capita by urban and rural location is presented in Table 4.24. This table shows that the Alberta food industry has experienced outstanding growth in its rural locations. Saskatchewan has experienced steady growth in both the urban and rural locations. Manitoba, however, has experienced growth only in Winnipeg. Its rural food processing industries have remained at about the same level of output for 30 years.

The factors which contribute to the differences shown in Tables 4.21, 4.23 and 4.24 warrant further study. In Alberta's case, the government grant program, Canada-Alberta Nutritive Processing Agreement, has encouraged the development of rural food processing between 1975 and 1980. However, the trend towards higher development began much earlier, which suggests that other factors contributed to rural development in Alberta.

Table 4.24

GROSS VALUE/CAPITA OF FOOD AND BEVERAGE INDUSTRIES, URBAN AND RURAL SECTORS, PRAIRIE PROVINCES, CONSTANT 1980 DOLLARS, IN 1960, 1970 AND 1980

	Alberta		**Saskatchewan**		**Manitoba**	
Year	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**
1960	$598	$ 89	$295	$170	$231	$439
1970	634	381	383	205	832	221
1980	765	602	497	304	910	381

Note: For this table, urban is defined as the cities of Regina, Saskatoon, Winnipeg, Calgary and Edmonton only.

Source: Statistics Canada (31-209, 31-203).

Transportation, Population, Marketing and Distribution Constraints in the Food Processing Industry

Transportation cost is a major factor influencing food processing in rural areas. Rates are generally less competitive than those offered in urban centres. Combining several products on one load ("pooling") is difficult to arrange in rural Saskatchewan because of the limited number of manufacturers. It is not unusual to find situations where products can be shipped, for example, from Toronto to Calgary at a similar cost to shipping from Yorkton to Calgary. Also, transportation rates are negotiable, especially if a processor is a large volume shipper located in a competitive urban location.

But some businesses do thrive in rural Saskatchewan despite higher transportation costs. To help explain why some industries survive or fail in rural areas, food processors can be classified into three main categories:

1. "Local Market" Processors - such as a small bakery, abattoir or butcher shop. These generally sell to local markets, have low transportation costs for finished products, and have a business size matched with the local market.

2. "Regional Market" Processors - such as a large meat processor, dairy processor, brewery or winery. These generally sell to a regional market, have higher transportation, marketing and distribution costs, and have a business size which can grow to achieve economies of scale.

3. "International Market" Processors - such as a malt plant, oilseed crushing plant or alfalfa dehydration plant. These generally sell to distant markets, have high transportation costs, have large volume, bulk shipments, and have advantages such as proximity to raw materials, low cost energy, or government assistance.

"Local market" processors fit well into rural locations. Their high costs of manufacturing are offset by lower marketing, distribution and transportation costs. Usually a retail sales operation is combined with processing. This category of processor is the basis for the large number of processors in rural Saskatchewan. They provide significant employment, business activity and quality of life in rural Saskatchewan.

The "regional market" processors always seem to be at a disadvantage in rural locations. These processors are present in rural areas but this is usually because of a preference by the owner(s) for lifestyle or other intangibles. Usually this category of processor will experience lower costs in an urban location. Alberta has encouraged the development of this category of processor in rural areas through its Canada-Alberta Nutritive Processing Agreement. In this program, processors receive a 35 percent grant on capital costs if they locate at least 10 miles outside of Edmonton or Calgary. This program has resulted in the establishment of rural food processors which rely on the large urban markets of Edmonton and Calgary.

A significant number of Saskatchewan food processors fall into the "regional market" processor category. These processors face intense competition from Alberta and Manitoba processors, especially if the product is meat, poultry, vegetables or other commodities which may not be labelled.

During the late 1970s, provincial governments launched promotional campaigns such as "Ontario Grown," "BC Grown," and "Saskatchewan's Own." Each of these promotional programs was designed to increase consumer awareness and provide some protection from interregional competition. These programs have faded away but the intense interregional competition remains.

The "international market" processor appears to fit into either an urban or rural location. Transportation costs are high and therefore the marginal cost difference between a rural location and nearby urban is not great. Very often, these processors are high volume shippers that can negotiate carload lot rates. As a consequence, they can establish in rural Saskatchewan and gain the benefit of proximity to raw materials and a quality labour force.

An essential ingredient to successful participation in the food industry is an adequate level of research and technological development from crop selection and production, through processing and marketing.

Two major thrusts are required. One is additional research into various aspects of food production, and the second is giving specific stimulus and direction to the development of food processing industries in Saskatchewan. In some respects these two matters are inextricably linked, and for this reason it is recommended that a Food Technology Council be established to help meet both requirements.

Proposed Food Technology Council

The purpose of a Food Technology Council (FTC) would be essentially to have a central managerial body to provide co-ordinated planning and guidance for the food processing industry. Its areas of concern would include research, technology transfer to both growers and processors and in concert with the Department of Economic Development and Trade, the development and growth of the food processing industry in Saskatchewan. The Council would manage a research fund to assist the food industry in its future development.

This proposal would require a considerable degree of co-operation and support from research agencies such as the U of S, SRC, NRC, and POS. All of these agencies would be represented on the board of directors. The FTC would consist of two distinct levels:

- A board of directors with representatives from existing research units, industry and government, to provide overall direction and leadership, and to have responsibility for financial requirements and commitments.
- A staff composed of a director and approximately four professional and two support staff. This group would be responsible for administration, research contracts, monitoring progress of contracted research and technology transfer, and a degree of industrial promotion. The director should also serve as executive secretary to the board of directors. It is suggested that council staff be housed at the U of S in Saskatoon.

The staff would need to include well qualified professionals with experience in the food industry who could interact successfully with growers, researchers and processors and also act as technical advisors to the board of directors. Required research would be carried out in existing university or other research facilities, and by existing scientists to the extent possible. Some new equipment and facilities would likely be required in future years, and additional staffing or contractual work could also be expected. It would require close consultation and co-operation between the Council and the agencies carrying out the work to adequately plan for future needs.

The development of priorities and programs, and identification of "gap" areas should be undertaken with input from researchers, Council staff, and the board of directors. The Council staff would be expected to be in frequent contact with both the researchers and private industry. The composition of the board of directors could be as follows:

- Sask. Science and Technology (provide Chairman)
- Director of Staff of the Council (Executive Secretary)
- Sask. Agriculture
- Sask. Economic Development and Trade
- Sask. Research Council
- Agriculture Canada
- Department of Regional Industrial Expansion
- University of Saskatchewan (2)
- Plant Biotechnology Institute
- Private Sector (one processor, one producer)
- POS.

The main duties and responsibilities of the Food Technology Council would include the following:

- Establish policies concerning the scope of responsibilities, technology transfer and industrial promotions of the Council.
- Develop priority areas and specific targets.
- Prepare budgets and request suitable funding through Treasury Board submissions. It is anticipated that all provincial funding for food processing related research would be through this Council.
- Solicit financial support from private sources such as growers associations and processors.
- Establish a format for contracting out research and other studies.
- Consult and co-ordinate with universities and other research agencies.

The duties and responsibilities of Council staff would include the following:

- identify research needs,
- liaise with research agencies and commercial firms to get their inputs,
- prepare programs and budgets,
- negotiate contracts with individual researchers,
- monitor progress of research projects,
- evaluate results of contracted work,
- disseminate information and technical assistance to processors,
- serve as resource people for industrial project development, and
- encourage and promote development of business management and marketing skills to the industry.

The Food Technology Council, in consultation with the respective research agencies, would annually plan and develop a work program to encourage the growth and well being of the food processing industry. Preliminary estimates indicate that the operating costs in the first year would be about $560,000. It is expected that some activities would increase in subsequent years and result in an annual budget of about $800,000.

Potential Food Processing Industries

The Task Force consulted with a number of people in the food industry regarding food processing possibilities which might be developed in Saskatchewan. While all of the suggestions listed below are considered to have potential, careful study would be required in each case to examine all aspects of practicality and viability. Possibilities which should be evaluated include the following:

- potato starch for potash refining,
- prepared fresh vegetables for commercial and institutional use,
- frozen potato products,
- fruit drink and juice reconstitution,
- edible oil processing,
- malt and malt extract,
- production of pet foods and diet pet foods,
- honey processing and packaging,
- expanded root crop production and processing,
- improved processing and expanded markets for wild rice,
- production and marketing of a spray dried product from pea protein and cheese whey for the bakery trade,
- fish processing from expanded aquaculture, and
- mobile freezing units for berries, mushrooms and vegetables.

Farm Machinery Manufacturing

Saskatchewan has over 100 firms that produce farm machinery and related equipment. Of this number, approximately 75 percent are located in rural communities (in some cases on farms). Some of those located in cities had their origins in rural communities. About three quarters of these firms are quite small and individually make only a modest contribution to the overall industry output. However, the net result is that a large number of companies relate to one general area of farm machinery manufacturing. One result is that the market is considerably fragmented. For example, there are seven or eight companies manufacturing rockpickers, cultivators and pneumatic seeders and for the most part, all vying for the same market. In addition, there are shortline producers of the same products in Alberta, Manitoba, and the USA, and the major companies are frequently in the same marketplace as well.

This rather severe market fragmentation has inhibited the growth of individual companies. Although several companies have achieved a substantial size, they are still quite small by international standards. Some may argue that there is no particular merit to "bigness," but greater size is helpful in at least two aspects. One relates to the increased capability to successfully enter more distant markets, and another relates to the technological capability to develop, produce and market complex and sophisticated types of farm machinery.

A modest number of Saskatchewan firms are now manufacturing component parts for other machinery manufacturers. These include items like cultivator sweeps, springs, hydraulic cylinders and monitors.

Saskatchewan manufacturers will have to be increasingly aware of the external forces and the kinds of change which are taking place around and within their industry. The next decade will almost certainly see a continuation of the shift to reduced summerfallow and a reduction in tillage related to seeding. This has obvious negative implications for manufacturers of tillage and seeding machines and very likely for tractor manufacturers as well.

The industry, internationally, is going through a period of severe readjustment involving both corporate structure and product lines. The result is a wide range of possibilities which could impact on Saskatchewan manufacturers. The major options within the provincial industry appear to include the following:

- production of other more complex machines, such as hay and grain harvesting equipment, processing equipment and tractors,
- development of new products,
- expansion into international markets,
- an industry consolidation, with some of the existing firms disappearing, possibly through mergers, and
- contract manufacturing.

The industry is expected to make at least modest progress in producing more complex machines. However, it is likely to be a rather slow process because it is difficult for small companies, such as those in this province, to develop and produce more complex machines. A smaller number of companies of larger size would be better equipped to produce and market machines such as mowers, rakes, balers, forage harvesters, swathers and combines. Production of these kinds of machines is generally more successful where production runs are quite long. By comparison, production of cultivators and dozerblades can be quite successful on relatively short runs. Manufacturers of more complex machines require considerable additional equipment and a general upgrading of machine design and production processes. The production of more complex machines also has ramifications in the marketplace in terms of the need for repair parts and higher levels of service.

Many Saskatchewan companies got their start by developing a new product or improving an existing one. Small companies are often quite innovative, and are able to rapidly develop and produce a product. By comparison, large companies must plan for a considerable period in advance to work both the development and production of a new product into their overall system. Government programs and services should recognize the need for small companies to be innovative and should acknowledge the very high cost of carrying out the required development and testing.

Expansion of markets is an important method of overcoming the limitations of market fragmentation. Many companies have put much effort into extending their markets in North America, and in recent years, offshore markets including Europe, the Middle East and Australia have become important. Distant markets may be enticing, but they are difficult to penetrate and expensive to service.

The present economic distress in the prairie and USA markets has left companies weakened and with less capability to pursue the distant and difficult markets. At the same time, it is recognized that the dryland equipment developed and improved in Saskatchewan has real potential in other areas of the world. Unfortunately, most potential markets are in semi-developed areas with difficult access and other barriers including language, lack of infrastructure, bureaucracy and technological deficiencies.

The extent and direction of industry consolidation is very difficult to predict. In the present difficult situation most companies have managed to survive, but several firms have rather severe problems and could either disappear or be significantly changed. It is not realistic to expect all existing firms to survive, thrive and grow if the duplication of product and target markets continues. The possibility of mergers merits serious consideration because it could help preserve some important economic activity in Saskatchewan.

The activities of the major farm machinery companies are changing. In some cases they are discontinuing the production of certain types of machines, and some companies have abandoned most of their implements and are producing only tractors. Even though this is happening, there is evidence that the companies wish to continue to sell other implements so that they have a relatively full product line to offer to customers. As a result they are prepared to enter into contractual arrangements with smaller manufacturers for the supply of implements which they would like to sell. There have also been situations where the major companies have a developed product but, because it does not fit into their production schedules or has too short a production run, they would like to have someone else produce it for them.

So far, Saskatchewan manufacturers have participated in contract manufacturing only to a modest extent, but there is an increasing interest on the part of manufacturers to enter into such arrangements. A major attraction is that the mainline companies are able to offer an extensive marketing organization which can rapidly introduce products to target markets on a broad geographic base, some of which may be overseas. Contract arrangements between small manufacturers and the mainline companies include both hazards and opportunities. Generally speaking, manufacturers should be encouraged to investigate possible contracts and participate on a modest scale, preferably with more than one major company.

Meat Packing In Saskatchewan

The decline of livestock production was noted earlier in this chapter. Also of concern is the Saskatchewan pattern of shipping out live cattle for both slaughter and feeding in other provinces. For example, in 1983, about 38 percent of slaughter cattle left the province for slaughter elsewhere, and in the case of feeder cattle, 63 percent were exported from Saskatchewan for further feeding.

Currently Saskatchewan has two major packing plants - Intercontinental Packers in Saskatoon and Canada Packers in Moose Jaw. There are also medium-size processors such as Fuhrmann (Regina), Midwest (Yorkton) and Empire (Saskatoon), plus a number of smaller operations in both city and rural locations.

There is no clear consensus as to whether or not Saskatchewan has an excess of capacity in the meat packing industry. If it was possible to reduce the export of feeder and slaughter cattle, more processing capacity would be required in Saskatchewan. At present, considerable numbers of cattle raised in eastern and southeastern Saskatchewan move to Manitoba markets while cattle from the northwest are often processed in Alberta. Two of Saskatchewan's major cattle-producing areas are the southeast and northwest, and they appear to be logical areas to consider for the construction of new meat packing facilities. An additional area to consider is Outlook. The complementarity of irrigation and large-scale feedlot operations give this area a significant potential for development.

There are several benefits of additional local abattoir capacity to cattle producers, including the following:

- producers could expect some improvement in stability of demand,
- freight costs and shipping losses would be reduced, and
- the potential for additional profits from feeding cattle out to slaughter weight.

Many small abattoirs in Saskatchewan have the potential to expand, and would willingly do so, given a market for their products. However, many are operated by production-oriented individuals who lack the time, expertise and resources to market products beyond their local areas. As a result of low throughput, production costs are often noncompetitive with regional or national firms. Some of these small operations could be assisted to expand into larger, more diverse markets by providing research, development and market analysis incentives.

Saskatchewan is currently more than self-sufficient in pork production. The province produced roughly double what was required in 1984. This extra production was marketed:

- in the United States as live hogs or meat,
- in other regions of Canada as live hogs or meat,
- in Japan as meat (more limited in 1984 than in previous years), and
- in other international markets (minor amounts of offal in Europe, and sundry products to the Caribbean,).

Notwithstanding current protectionist activity in the United States, pork is freely traded on a North American market, and additional quantities can be marketed if produced.

A substantial increase in production would require an expansion in slaughter facilities, either through expansion of existing meat packing plants or through the development of a new slaughter facility.

Poultry processing in Saskatchewan is largely concentrated at two firms - Plains Poultry in Wynyard and Canada Packers in Saskatoon. Saskatchewan processors account for about 2.7 percent of the Canadian market, which indicates that Saskatchewan falls well short of the 4 percent which would be the fair share of the Canadian market based on share of population. Those in the industry believe that because of the rural population there is some consumption of poultry which does not go through commercial processors, and therefore the province's actual share of processing may be higher than 2.7 percent. However, a similar situation regarding noncommercial processing may prevail in other provinces as well.

There is, however, some importation of processed poultry into Saskatchewan, from both Manitoba and Alberta. This situation, coupled with the fact that there are only two major processors in the province, suggests that there may be potential for an additional processor. A new market outlet should be attractive to producers.

In addition to the usual economic analysis, a prospective new processor would need to consider the following:

- since poultry production is regulated at the producer level, sources of supply would have to be evaluated and developed accordingly,

- the existing producers and processors may have some long-standing relationships which would need to be considered,

- the fast food outlets such as Kentucky Fried Chicken and McDonald's would need to be evaluated as an important market segment, and

- there is a growing range and volume of prepared foods sold through grocery stores which feature poultry as a major component. Processing for this market may have potential for expansion.

RECOMMENDATIONS

1. The Government of Saskatchewan should establish a Food Technology Council to provide leadership, guidance and assistance (research, development, technology transfer and technical help) for further development of the food processing industry in Saskatchewan. This should be supplemented with direct government assistance to the industry in the form of:

    - opportunity seminars for industry participants, and for organizations such as community development corporations and community economic development committees,

    - information packages for use in the educational system and the business community, stressing the importance of domestic and export marketing of Saskatchewan products,

    - market feasibility studies by the Department of Economic Development and Trade, and

    - support of a Rural Option Emphasis which would encourage at least some of the industrial development to take place in rural communities.

2. The Government should re-examine its total rural development effort and its current organizational structure which distributes responsibility for rural development among several departments and agencies and dissipates the overall thrust accordingly.

3. The Government of Saskatchewan should consider establishing a major development/investment corporation which could acquire through existing resources and share subscription a large pool of investment capital. The purpose of such a corporation would be to make investments in suitable major Saskatchewan enterprises such as fertilizer production or edible oil production, and enter into joint ventures or equity participation with national and multinational companies for projects mainly in, but not confined to, Saskatchewan.

4. The needs of rural Saskatchewan communities for assistance in developing industrial parks and the role of SEDCO in such developments should be given further consideration.

5. The Department of Economic Development and Trade should provide more assistance to the farm machinery industry to help it overcome its problems and undertake additional, new opportunities. Such assistance should include research and development incentives, financial assistance for market feasibility studies, and advisory services regarding structural and organizational aspects of the industry.

CHAPTER IV

ECONOMIC DEVELOPMENT

SERVICE INDUSTRY

Discussions of economic development are often inclined to dwell on manufacturing and processing, with only minor consideration given to the service industry. The realities of economic development in rural Saskatchewan are that, desirable as manufacturing and processing may be, the opportunities for many small communities to develop or attract such industries are quite limited.

In comparison, services of many types have been the essence and the reason for being of many small urban centres since the beginning of settlement in the province. The main economic bond between the village or town and the farming community is the services needed by farmers and the provision of those services by the businesses located in those towns and villages. The service industry as discussed here includes the entire range of commercial activities typified by:

- retail merchants,
- professionals,
- finance,
- trades (such as electricians and plumbers),
- personal services,
- food and accommodation, and
- entertainment.

It is useful to examine briefly some of the differences between service and manufacturing industries, particularly in terms of how they are influenced by locational factors.

Manufacturing in general is influenced by factors such as:

- market opportunities and access,
- proximity to raw materials,
- a skilled labour force,
- transportation services, and
- a host community of appropriate size and having adequate services and amenities.

While manufacturing is very aware of local markets, most plants are established to supply a fairly broad geographic area and the objective is to be well-located within that market area.

Service industries are based much more on consumer demand within a fairly limited area. If there are enough people who require a particular kind of service within a trading area, it is highly likely that one or more businesses will be there to provide the service. When available services exceed the requirements of a community, some of the services will inevitably lose out and disappear. Over time, the kind of services required and the level of demand can change very dramatically. Two significant examples of such occurrence in Saskatchewan are discussed here.

In the farm machinery industry, during the province's early history, there were one or more machinery dealers in virtually every small urban centre. Many of the larger towns had a full complement of dealers representing each of the nine major farm machinery companies which were active at that time plus, in some cases, additional outlets selling shortline equipment. The proliferation of machinery outlets was largely a response to the need for such services when roads and mechanized transport were in a rather primitive state. An additional factor was the rapid rate of mechanization.

Increases in farm size, improved roads, good vehicles and technological advances in mechanization all combined to greatly reduce the need for the frequency of machinery dealerships, and their numbers diminished rapidly. Today's complex and sophisticated machines require a calibre of services and a level of repair stocks that can only be provided at infrequent geographic intervals.

A second example is the country grain elevator system, which has been a significant component of the local community structure. As early as the 1950s, the grain companies were beginning to grapple with the costs, efficiency and productivity of their grain handling systems. It was not long before a consolidation and rehabilitation trend became evident, and subsequently there has been a steady decline in both the number of delivery points and the number of elevator units. Table 4.25 illustrates what has occurred. The trend to larger farms and the future impact of federal transportation policies may lead to even greater consolidation of the grain handling system.

Table 4.25

COUNTRY ELEVATOR DELIVERY POINTS AND ELEVATOR UNITS IN SASKATCHEWAN, 1961, 1971 AND 1981

	1961	**1971**	**1981**
Delivery Points	1,103	1,032	683
Elevator Units	2,908	2,738	1,813

Source: Derek Murray Consulting and Associates.

Examination of the distribution of retail sales throughout the province provides some insights into the utilization of services in the province. Table 4.26 illustrates that in 1982 retail sales in the city of Regina were not much lower than the retail sales of all rural communities combined. The twelve cities accounted for approximately 72 percent of all retail sales in Saskatchewan, while having slightly less than 50 percent of Saskatchewan's population.

Table 4.26

DISTRIBUTION OF RETAIL SALES IN SASKATCHEWAN, 1982

Regina	23.7%
Saskatoon	20.8%
Moose Jaw	5.1%
Prince Albert	4.4%
Other Cities	18.0%
Rural Communities	28.0%

Source: Derek Murray Consulting and Associates.

Studies have indicated that the trend towards almost continuous growth in larger city retail sales has abated in the last 10 years. The shopping mall boom of the 1960s and '70s has slowed. There is no apparent reversal in shopping patterns, but the situation may have stabilized.

Most small urban centres, particularly those that border on viability or on having a stable population, are still highly dependent on the community and the surrounding region's agricultural economy. Farming, through its own technological changes, has dramatically impacted on agricultural employment in Saskatchewan. Employment in agriculture has declined to under 100,000 people, which is approximately 20 percent of the province's employed labour force. The rate of decline has now slowed and there have been projections suggesting that it may stabilize at between 80,000 and 90,000 people.

Improvements and growth in several areas, such as the livestock industry, irrigation and the extent to which agricultural products are processed before they leave the province, could all have a very positive effect on the economy of rural Saskatchewan.

The causes of rural instability are to a large extent rooted in the nature of the rural economy and its dependence on a narrow agricultural base. This is most apparent when communities which benefit from a broader industrial activity are observed. For example, urban communities located in areas of oil, potash, coal and forest development all illustrate the substantial economic boost which these industries provide.

Manufacturing can be and is influenced to some extent by government incentives and assistance programs. Service industries, on the other hand, react primarily to the needs of the community which they serve.

Through studies of various kinds, including analyses of imports and levels of indigenous production, governments can develop reasonable base information upon which to design programs to promote manufacturing and processing industries. The ability to create comparable programs for the service industry is far less developed.

The service industry, by its nature, is difficult to assist in clearly defined ways. There is such a diversity of occupations and enterprises involved that any program more specific than general employment incentives would be difficult to develop. Even employment programs in this sector are of dubious value since jobs created through artificial stimulus may not be sustained over the longer term. This suggests that in the short term, there may be little that senior government can do to stimulate the service sector. One program in place, called the "Community Economic Development Program," encourages and assists communities to analyse their own capabilities and potential for development. The Task Force believes this is an excellent program and should be pursued and expanded.

In the longer term, the potential for growth in the rural service sector relates very strongly to what can be done to encourage economic growth in the primary industries. For much of rural Saskatchewan, the areas of greatest potential are most likely in relation to:

- a revitalization and growth of the livestock industry,
- manufacturing and processing of agricultural products within the province,
- irrigation development, and
- specialty crop development.

Each community must review its own circumstances and develop its own unique action plan for development. For example, communities located near a resort or tourism destination can increase their retail sales based on the additional income brought to the area through tourism. The same is true for communities located near resource extraction and processing. Communities can also increase sales on the basis of service to customers. Some communities will have strategic locations in terms of major highway access.

For some communities, new retail approaches may be desirable. For example, shopping malls in communities below 4,000 in population are rare. In some communities they may be viable. With the Venture Capital Corporation legislation in place, it could be possible for smaller communities to develop rural shopping malls through local investment. This type of mall could be 20,000 to 30,000 square feet and might contain a food store as an anchor plus clothing store, drug store, bank and department store. In general, communities with less than $10 million in annual retail sales could likely not support such a facility. The potential for such a facility would have to be studied carefully. The community itself might wish to participate by way of contributing the land base or with partial land assembly. A venture capital corporation could be formed to develop and manage the facility. Another possibility for implementation would be by means of a community development corporation. With local investment and the right mix of commercial services, the concept could have strong appeal and support from residents in the community.

Senior governments have not tended to look to local governments for direction as to the kind of future the rural communities want. Ultimately the goal should be to place responsibility with those groups or communities who are affected by their own actions. The role of senior governments should be to provide a strong role in central guidance, co-ordination and support.

There are two serious impediments to rural development and the viability and health of service industries in rural Saskatchewan which the provincial government should eliminate. One major problem relates to the current process of property assessment, which is discussed more fully in the chapter on Local Government. The present approach appears quite clearly to discourage the development of small businesses and service industries in rural areas, so the assessment system should be changed as soon as possible to remove inequities and disincentives.

The second major problem area relates to the financing of small rural businesses. The basic problem is that rural businesses can seldom get the same level of commercial financing that is available to similar businesses in cities. This is in part due to the lower potential resale value of fixed assets and the more modest opportunities for growth of the businesses. Financial assistance in the form of interest rate reductions for rural enterprises would reduce this major impediment.

RECOMMENDATIONS

1. A financial assistance program for rural enterprises should be developed to remove the financial disadvantages often experienced by rural businesses when constructing new or expanded facilities, or establishing new businesses.

2. Continued strong support should be given to the Community Economic Development Program.

CHAPTER IV

ECONOMIC DEVELOPMENT

TOURISM AND OUTDOOR RECREATION

The purpose of this section is to assess the potential of tourism and outdoor recreation as a stimulus to rural economic and social development in Saskatchewan.

Although tourism is unlikely to provide the primary base for a self-sustaining economy, it can provide a stabilizing effect in many rural areas of Saskatchewan through increased income and employment opportunities.

The main arguments in favor of stimulating tourism within an overall economic growth strategy for rural Saskatchewan can be summarized as follows:

- Since tourism is a labour-intensive industry, it could provide employment opportunities and help overcome the problem of underemployment in rural Saskatchewan. For example, at present for every $1.0 million in tourism expenditures in Saskatchewan, 33.5 person years of direct employment are created and an additional 11.8 person years of indirect employment are created due to the multiplier effect of tourism expenditures.

- Tourism is relatively recession resistant. The growth in tourism expenditures exceeded growth in consumer spending through the 1970s. While retail sales slowed during the 1981-82 recession, travel expenditures increased.

- From an investment perspective, participants in the industry do not have to make large capital outlays relative to other sectors such as manufacturing or mining. The tourism industry offers some good opportunities for private sector investment since individual projects tend to be relatively small. In the case of larger projects, investment could be structured in such a way as to involve a number of relatively small investors through mechanisms such as Venture Capital Corporations.

- From a regional development perspective, tourism is applicable to various regions and communities, both large and small. Tourism has the potential to provide a wide distribution of economic development benefits throughout the province, including small communities which might not be able to successfully support other types of industries.

- From a government revenue/expenditure perspective, the tourism industry already provides a significant net financial benefit to the provincial treasury. According to Tourism Canada, the

Saskatchewan government in 1981 received $75 million in revenue as a result of tourism activity. Financial support for Saskatchewan's tourism industry generates a positive cash flow for the provincial government.

An Overview Of Saskatchewan's Tourism Industry

During the past three years, Saskatchewan averaged over 1,000,000 visitors annually from other Canadian provinces, 466,000 visitors from the USA and 40,000 visitors from "other" countries. In addition, Saskatchewan residents undertake approximately 6,000,000 person-trips per year within their own province for tourism related purposes.* Tourism expenditures in Saskatchewan during 1983 were as follows:

Canadians from other provinces	$159 million
USA and other countries	53 million
Saskatchewan residents	755 million
TOTAL	967 million

Tourism is an export industry in the sense that tourists who are not residents of Saskatchewan come to the province and consume goods and services within the province. Out-of-province visitors consumed $212 million worth of goods and services in Saskatchewan during 1983. Table 4.27 compares the economic benefits derived from tourism with those of other export industries.

Table 4.27

SASKATCHEWAN EXPORTS BY COMMODITY, 1980-1983
(In Millions of Dollars)

Commodity	1980	1981	1982	1983
Manufactured Goods	$ 657	$ 771	$ 766	$ 798
Grain	2,965	2,688	3,051	3,172
Potash	1,010	998	643	686
Crude Oil	1,370	1,248	1,418	1,714
Uranium	232	258	251	120
Tourism	164	189	203	212
Livestock	77	66	76	75
Lumber	21	27	25	34

Source: Saskatchewan Bureau of Statistics.

---

* A "tourist" is defined for purposes of these statistics as a person who travels away from home for 50 miles (80 km) or more one way for purposes of pleasure, business or personal reasons.

Tourism expenditures within Saskatchewan annually create over 23,000 jobs directly within the industry and another 8,000 jobs indirectly. Tourism directly accounts for over 5 percent of the province's employed labour force. It employs only slightly fewer people than does manufacturing, and exceeds employment in mining and other resource sectors of the province, with the exception of agriculture, which is the province's largest employer.

Inventory And Assessment Of Saskatchewan's Tourism Products

Tourism can be divided into two major components: Tourism Resources and Tourism Plant. Tourism resources include the following:

- Natural tourism resources - includes geological features, water features, vegetation and wildlife.
- Historical and cultural resources - includes the physical structures, interpretive displays, artifacts and handcrafts.

Tourism plant includes the following:

- Tourism facilities and services infrastructure - includes those man-made facilities developed to provide the vacation, pleasure or business traveller with the necessary accommodation, food and beverage, transportation, shopping, entertainment, and related services.
- Events and attractions - includes both programmed and non-programmed activities designed to celebrate a particular event and physical facilities of special interest to attract travellers to a given area.

Natural Resources

The province's land and water resources are quite diverse and, if properly managed, can provide the basis for a healthy tourism industry. Unfortunately, resources which have the potential to generate travel activities are not equally distributed throughout the province. Indeed, some of the most attractive resources with capability to support intensive uses are not situated close to major urban markets or interprovincial travel corridors where they could be easily accessed by the travelling public.

Much of the southern half of the province is utilized for agricultural purposes, with tourism and recreation opportunities restricted largely to a limited number of moderate quality lakes that provide a range of water-based recreational opportunities. Although of only a moderate capability, the lakes and adjacent shorelands in southern Saskatchewan have traditionally supported much of the summer, resident recreation as well as certain traffic by nonresidents (the Qu'Appelle Lakes and Buffalo Pound Lake are good examples). Regional and provincial parks have been developed around most major water bodies in southern Saskatchewan. Private and public sector investments in these areas include primarily campgrounds and cottages. Although important, these lakes are not considered to have good enough water quality to attract and sustain significantly greater private sector investment. Lake Diefenbaker offers the major longer term tourism and recreation potential in southern Saskatchewan, but development will require a significant funding commitment.

The Cypress Hills and the southern portion of the Shortgrass High Plains offer a unique set of landscape features which should be of interest to many Trans Canada travellers. Scenic travel routes have also been identified along the Qu'Appelle. In addition, the Great Sand Hills, the major river valleys, Regina Plains and the Big Muddy are examples of areas with unique scenic characteristics. Due to their proximity to the Trans Canada Highway, they should be given careful attention in tourism planning, development and marketing.

In summary, although Saskatchewan's natural resources in a Western Canada regional setting may not be outstanding, if properly managed and developed they could increase the number of visitors and dollars spent in rural Saskatchewan.

Historical and Cultural Resources

Saskatchewan has a historical and cultural resource base of international and national significance but, to a large extent, it remains underdeveloped and little known.

There is potential for expanded commercialization and interpretation of historical resources unique to Saskatchewan, including the promotion of Saskatchewan's strong Metis history, Indian culture and legends, law enforcement, outlaws, and other themes of the pioneer west and community development. Excellent examples of specific heritage projects that could be developed to provide an educational and entertaining experience, attractive to the growing tour market and serve as an anchor for many more public or private sector developments include:

- the Riel Rebellion of 1885,
- Batoche National Historic Site,
- a natural history theme (Grasslands National Park),
- themes related to prehistoric life or paleontology, which might be located in Shaunavon, and
- the creation of one or more "Saskatchewan Pioneer Towns".

The following is a development concept presented by Mr. Ian E. Wilson, Provincial Archivist, at the Tourism, Travel and Culture Conference which was held in Saskatoon in 1984:

"I would like to introduce a pet project of mine - a Saskatchewan Pioneer Town - a living, exact, recreation of a Saskatchewan boom town of circa 1905 - just after the railway arrived in their area. I know there have been attempts at this - Boomtown in the Western Development Museum, Saskatoon, the buildings and living farm in North Battleford. But I dream on a larger scale. Let's take a town site, a town that perhaps is disappearing on a rail line destined to be abandoned, and let's restore it to a suitable date in the 1890's or early 1900's. A staff, of all ages, will play the early settlers, going about their daily business, building the town around them, while tourists roam about and talk with the residents. We'll park our cars several miles away, perhaps in the next town, and go into Pioneer Town on the railway-steam locomotive and colonist cars. We'll get off at the station and begin to roam. The town newspaper is just being printed - we'll watch type being set and perhaps get to operate the press ourselves - the blacksmith is busy shoeing a horse; we'll attend a class in current events at the one-room school; for lunch we can choose from the hotel - or one of the private homes - for home cooking - an immigrant family has just arrived from Sweden and I'd like to try their food. In the afternoon, we'll walk out of town to where a homesteader is building his soddy, or where a family that arrived last year is working the land. Others can be seen unloading a prefab house (ordered from Eaton's) from a box-car; the banker is in his office and is talking about farm credit. Later, 1905 being an election year, Walter Scott, the new premier, or the opposition leader Haultain will hold forth on public issues at the town hall, or perhaps W.R. Motherwell will arrive to discuss the Saskatchewan Grain Growers Association and the evils of the Winnipeg Grain Exchange.

In other words, I am suggesting a total immersion in history, for a few hours, for a day, for several days over different seasons as the town takes shape. Our many small museums and individual scattered heritage buildings of course each tell part of this story - but I would like to see the complete pioneer experience of one typical community told once - and told extremely well, with all of the artifacts, all of the buildings, and even the characters in their setting.

This is not a new idea. It is being done with great success -

- at Upper Canada Village, Ontario, since the late 1950's;
- at Kings Landing, N.B.
- at Sherbrooke Village, N.S."

Saskatchewan also has great potential to expand the tourism market by encouraging an awareness of what occurs on a typical Saskatchewan farm and why it is done. Demonstration farms could be established through joint public/private sponsorship to provide visitors with working examples of both dryland and irrigation farming. Pioneer farming practices from the early 1900s could be demonstrated as well. Such farms could serve the dual function of attracting tourists and portraying modern technology to Saskatchewan people.

Also, instead of demolishing some of the grain elevators which are shut down, they could be used to demonstrate to travellers how grain elevators actually operate.

Events have always figured prominently in Saskatchewan's history and culture. In certain instances, annual events can be traced back to the formation of Saskatchewan as a province and as far back as the 19th century, as in the case of the Regina Exhibition Association which is celebrating its 100th year of organizing and managing events such as fairs. Many of Saskatchewan's 506 incorporated communities host annual events of one form or another, usually during the summer. Many of Saskatchewan's events have an almost historical association with community life in the province. They have always been an important characteristic of Saskatchewan's lifestyle of "getting together" at such events as a jamboree, rodeo, fair or sports tournament.

Rodeos are the most popular form of event in Saskatchewan, accounting for 25 percent of all Saskatchewan events. Attendance at rodeos varies between 1,000 and 40,000 people. Small communities such as Wood Mountain and Shaunavon attract over 3,000 people to their rodeos, while the rodeo at Craven attracts about 40,000 people. Average per person expenditures at rodeo events are $29.59 and at sports events $36.74. It is estimated that over $140 million in expenditures result from Saskatchewan events.

Events clearly have the potential to induce destination motivated travel to Saskatchewan communities. With further development of both the events themselves as well as co-ordinated programming support to link events with other attractions and significantly enhanced marketing of events both within the province and out-of-province, the economic impact of events on host communities can be greatly increased.

Tourism Plant

Saskatchewan has limited high quality tourism destination areas with well developed support services. There are a number of attractive parks in the province, but generally with modest services. The same assessment can be applied to other components of the tourism plant. The development of a new national park such as the Grasslands could significantly increase the national exposure and marketing image of the province in terms of both resident and nonresident perceptions of Saskatchewan's scenic resources. This could impact positively on towns such as Val Marie.

The province has 100 regional parks that serve outdoor recreational needs primarily of local residents for day use and camping. A number of parks within the system have the potential to complement existing or proposed tourism attractions and become major tourist destinations. However, increased investment directed at producing higher quality recreation would be required for any significant positive impact from travel markets.

Regional parks should be classified according to their tourism potential, and capital, operating and maintenance funding should be directed more extensively towards the regional parks which have a good tourism resource base and which can be tied to other attractions.

A component closely linked to the accommodation sector is the food and beverage industry. The 12 cities account for 75 percent of the licensed dining rooms in the province, of which 65 percent are located in Regina and Saskatoon. Most other communities have licensed beverage rooms but do not have licensed dining rooms, cocktail rooms or restaurants licensed for sale of beer and wine. With few exceptions, the food and beverage service sector in rural Saskatchewan does not provide the range and level of services which are consistent with a high quality tourism experience. Visitors seeking these types of facilities are limited to the cities.

The majority of hotels in rural Saskatchewan do not cater to the tourist trade. They are operated primarily for obtaining a license for a beverage room. The operators typically do not spend much money on upgrading or maintaining the rooms. Expenditures which are made tend to be made on the beverage rooms.

Deletion of the room requirement might create the necessary climate for entrepreneurs to build new cocktail rooms or licensed dining rooms rather than operate licensed beverage rooms from old hotels. This could also lead to the upgrading of hotel/motel rooms in centres with strong tourist potential.

Studies indicate that the annual occupancy rates of hotels/motels in rural areas are typically less than 60 percent and the hoteliers are orienting their business primarily to local residents (restaurant-beverage rooms) and pass-through traffic along major travel corridors. Improvement of the quality of special events in these communities, supported by good marketing, would do much to improve revenues to these establishments. This, in turn, would encourage operators to modernize their establishments. Lack of quality is a problem characterizing the industry province-wide and is a concern expressed by both vacation and business travellers.

Vacation farms represent a relatively new and uniquely different recreation experience in Saskatchewan. Currently, the annual levels are approximately 2,500 guest nights. However, if developed, farm vacations could provide an effective rural alternative of potential interest to urban and out-of-province markets. They are potentially also a significant attraction Saskatchewan could develop for the international pleasure travel market.

The Saskatchewan Farm Vacations Association is an all-volunteer organization with operating revenue derived from membership fees. Its operating revenue is inadequate for the Association to effectively recruit new member farms, to produce a regular newsletter or to gather adequate statistics on farm visitations.

There is a need for funds to hire an employee for a two-year period to recruit new farms for the Association and to provide advice and assistance to host farms and the Association. The current membership of the Association is 30 farms. For farm vacations to become an effective rural tourism development tool, the membership has to be expanded to offer a greater variety of experience for more effective market penetration.

Over 500 tourism attractions (man-made, natural and commercial/cultural) have been identified. These attractions, in the main, are only of local or regional appeal. Whether the attractions are of a religious significance, industrial significance, architectural importance, of historical interest, museums, natural features, or of a commercial/cultural significance, they all typically suffer from two main problems:

- they are underdeveloped and consequently do not provide the quality of product to attract significant visitations and expenditures, and

- they lack structured programming and interpretation of the attractions.

A need exists to develop key attractions ranging in importance from local through to national, and in some instances international significance.

Travel Motivators

Recently, Saskatchewan Tourism and Small Business completed market studies of travellers in Ontario, Alberta, Manitoba, British Columbia, Montana, North Dakota and Minnesota.

In all of these studies, the 19 major activities most often pursued by tourists on pleasure trips were listed. The five most popular activities listed included rural sightseeing, visiting historical sites/museums, urban sightseeing, attending events/festivals, and camping. The relative popularity of each activity is shown in Table 4.28.

Table 4.28

MAJOR TRAVEL ACTIVITIES

Activity	Market						
	Ont.	**Alta.**	**Man.**	**B.C.**	**Montana**	**N.D.**	**Minn.**
Rural Sightseeing	81%	85%	87%	83%	77%	79%	80%
Historical Sights/Museums	78%	78%	79%	85%	88%	88%	80%
Urban Sightseeing	79%	77%	80%	78%	73%	78%	75%
Attending Events/Festivals	68%	65%	66%	65%	56%	60%	69%
Camping	36%	69%	59%	61%	64%	51%	48%

Table 4.28 indicates that rural sightseeing is one of the most dominant activities which pleasure travellers pursue on a trip. "Rural sightseeing" means more than a family driving in an automobile looking at grain fields, elevators and small towns. When people travel for rural sightseeing, they combine this activity with other activities such as camping, visiting quality historical sites and museums. At the same time they want to enjoy quality dining, accommodation and services. Here again, development and improvement are required to attract tourists.

RECOMMENDATIONS

1. The provincial government should establish tourism as a key component of rural development in its overall planning and development for Saskatchewan. This means the Province should be prepared to allocate substantial sums of money to tourism development in rural areas. This should include consideration of means to encourage intermunicipal government co-operation for the development of major tourist attractions and the marketing of such developments.

2. The Province should develop programs to provide encouragement and technical assistance to communities which may wish to develop a theme or programs to attract tourists.

3. The Province should introduce an "Awards for Community Enterprise" program (described in Chapter V) to encourage communities to engage in beautification activities to make them more attractive to visitors.

4. The Department of Rural Development should provide an annual operating grant to the Saskatchewan Farm Vacations Association over a five-year period and provide the Association with funds to hire an employee for a two-year period.

5. Consideration should be given to the possibility of revising the liquor legislation to delete the room requirement for establishments that are primarily interested in operating licensed beverage rooms.

6. The Province should institute a classification system for regional parks to give higher priority to parks with high tourism potential.

7. Provincial policies are needed to protect and enhance the quality of the landscape of tourist areas if the full economic potential of tourism and outdoor recreation in rural Saskatchewan is to be realized. Tourists will not be attracted to areas afflicted by water pollution or where natural beauty has been marred as a result of inadequate land use planning and controls.

CHAPTER IV

ECONOMIC DEVELOPMENT

FORESTRY

Forestry enterprises in Saskatchewan are concentrated chiefly in the Meadow Lake, Prince Albert and Hudson Bay areas, and to a lesser extent in places such as Glaslyn, Big River and Carrot River.

Historically, Saskatchewan forestry enterprises have been based largely upon leases or cutting rights on Crown lands. Much of the area around existing mill sites has been allocated on this basis as well. Generally the mill operators either develop their own cutting and hauling crews, or obtain a supply of raw wood for their mills on a contract basis.

While much of the forest resource area is beyond the agricultural area of Saskatchewan and generally beyond the area of direct concern to the Task Force, there is a considerable amount of land along the fringe of the agricultural area which is at least partially treed. These areas are characterized by considerable stands of aspen, much of which is to be found on farm woodlots. While aspen has potential for use in pulp operations, its chief utilization at present is likely to be in particle or waferboard production.

Forest industries supplied with raw product from farm woodlots and other privately held land is common in many countries. In Sweden, for example, which is considered to be in the forefront of forest technology and management, the practice is well-accepted. In the mid 1970s Domtar got 100% of its wood supply for its Saskatoon ceiling board plant from private farm lands (about 25,000 cords of aspen per year). Unfortunately, this plant was a considerable distance from the supply of wood and the resulting high transportation costs were a major factor in its demise.

Development of an industry based upon the concept of sourcing the raw wood primarily from farm woodlots would require some new and different initiatives. In the past, developers have negotiated with the government for leases on large tracts of Crown forest land. One possibility would be to provide some of the Crown forest land to smaller operators on an owned or leased basis similar to family farm operations. The concept under discussion here would obviously require some fairly in-depth assessment of the quantity and quality of raw product available on Crown land and on farms, the economics of harvest and delivery of the wood, and the economics of tree farming. Some of the development approaches which should be considered include the following:

- Saskatchewan Forest Products could take the initiative and carry complete responsibility for the development of both the major forestry activities and the development of more tree farming.
- The Department of Economic Development and Trade could endeavour to interest a private company with experience in particle board production to undertake some of the envisioned development.
- Development of tree farming could lend itself to being the central objective of a Regional or Community Development Corporation. While it has attractions, it would have a rather high capital cost and would require a strong management team to develop and pursue a comprehensive business plan.
- The development area under consideration is in the DRIE Tier II region and presumably could qualify for assistance.

Producing wood for the forestry industry on privately held land potentially has several attractive aspects:

- Farmers with woodlots would have a market for the wood products.
- Since cutting and delivery would take place largely during the winter period, it would be a good supplementary enterprise to combine with grain or livestock production.
- A market outlet for wood would encourage farmers to retain a producing woodlot as opposed to cutting and burning to make more land available for cereal production.
- The industry plus the associated harvesting activities would contribute to community stability and growth.
- It would be utilizing a resource that at present largely goes to waste.

RECOMMENDATION

The Task Force recommends that the Departments of Economic Development and Trade, Parks and Renewable Resources and Rural Development establish an interdepartmental committee, chaired by a representative from the Department of Parks and Renewable Resources, to evaluate:

- the potential for development of a new particle board facility in Saskatchewan in terms of current and projected markets,
- the sources, quantities and suitability of wood available,
- the economics of such a project, and
- the desirability of providing some Crown forest land to potential tree farmers on a sale or long-term lease basis.

CHAPTER IV

ECONOMIC DEVELOPMENT

FISH FARMING

Fish farming is a means of increasing food supplies which in recent years has gained prominence in many areas of the world. In Saskatchewan, such activity primarily involves rearing rainbow trout to table size in water bodies ranging from farm dugouts, to ponds over 30 acres in area. Rainbow trout are the only species used for fish farming in Saskatchewan. Experiments have been conducted with brook trout, splake trout, artic char and some salmon species, and the results indicate that the growth and survival rates of these species make them unsuitable for fish farming in the province.

The rainbow trout are released as 2-6 inch fingerlings in the spring and harvested by angling through the summer or, more commonly, by gill-nets in the fall or early winter. The water bodies generally lose their oxygen as winter progresses, any remaining fish winter-kill, and a fish-free pond is ready for restocking the following spring.

This method of releasing free-roaming fish into a water body to grow on natural food is termed "extensive fish farming." Methods of feeding fish in cages or raceways with flow-through or recirculating water supplies are termed "intensive fish culture."

Currently, extensive fish farming in Saskatchewan is mainly a recreational pursuit, with approximately 95 percent of all licences issued going to private fish farmers and 5 percent to commercial fish farmers.

Private Fish Farming

In 1982, "hobby" fish farmers in Saskatchewan produced about 146,000 pounds of rainbow trout by stocking 432,000 fingerlings. Table 4.29 illustrates the number of persons who obtained private licences free-of-charge for rainbow stocking from 1970 to 1984. Farmers tend to raise, on the average, about 250 trout each for their own consumption and for that of their friends. Although there has been a relatively good growth in the number of "hobby" fish farmers since 1970, it should be noted that there is a major turnover in participants annually. Each year there is a significant dropout in participants and a large number of new participants.

The large turnover is due to many problems. For example, the recovery rate of privately stocked fish averages about 36 percent due to natural predators such as the great blue heron, mink, gulls and terns.

Excessive algae or low water levels lead to oxygen depletion and summer kill. In some cases there is also a problem of muddy flavour due to natural influences.

These are not insurmountable problems. Algae can be treated with chemicals such as copper sulphate. Low oxygen levels can be overcome through the use of aeration systems, such as using compressed air or wind-driven pond mills. Using aeration systems will also allow for fish to overwinter and trout up to 6 pounds can be harvested. The muddy flavour of rainbow trout can be overcome through canning or smoking of fish. However, few fish farmers undertake the additional steps to increase fish productivity or to improve the quality of fish.

Table 4.29

NUMBER OF PERSONS WHO OBTAINED PRIVATE FISH FARM LICENCES, SASKATCHEWAN, 1970 - 1984

Year	**Number**
1970	130
1971	390
1972	781
1973	1,075
1974	2,180
1975	2,246
1976	2,210
1977	1,733
1978	1,895
1979	2,114
1980	1,936
1981	1,568
1982	1,836
1983	2,026
1984	1,969*

* The decline was largely due to lack of moisture in spring, 1984.

Source: Parks and Renewable Resources, Fisheries Branch.

There is increasing pressure from both commercial and sports fishermen on the provincial fisheries resource. If this continues it may result in an inadequate supply to meet the increasing demand. Such an imbalance would have negative impacts on Saskatchewan's recreation, tourism and renewable resources industries. Increasing private fish farming industry in the province is one of the means by which angling pressure on public fishing waters can be alleviated.

Commercial Fish Farming

In 1984, 72 commercial fish farm licences were issued in Saskatchewan. Table 4.30 indicates the number of commercial fish farm licences issued in Saskatchewan from 1970 to 1984. For an annual fee of $15.00, a commercial fish farm licence grants the holder rights to the following operations:

- To stock and harvest fish for commercial sale. The fish may be sold directly to local consumers, or to retail outlets such as restaurants or stores within the province. Those intending to sell fish outside the province must obtain a special dealer's licence.
- To stock fish for sale to the public by means of angling on a "fee" basis. People angling at such an establishment do not require a provincial angling licence, but must retain a receipt showing the source of fish for their own protection.
- To act as a broker, importing fish from suppliers outside the province and reselling them in smaller lots to private or commercial fish farmers in Saskatchewan.

Table 4.30

NUMBER OF PERSONS WHO OBTAINED COMMERCIAL FISH FARM LICENCES, SASKATCHEWAN, 1970 - 1984

Year	Number
1970	17
1971	30
1972	37
1973	36
1974	37
1975	39
1976	50
1977	51
1978	53
1979	53
1980	52
1981	54
1982	52
1983	55
1984	72

Source: Parks and Renewable Resources, Fisheries Branch.

In 1982, commercial fish farmers stocked 253,000 fingerlings and produced approximately 67,000 pounds of rainbow trout valued at about $130,000.

Although demand for rainbow trout and selling prices are both relatively good, few commercial fish farms in Saskatchewan are currently economically viable. This is due, in part, to commercial fish farms purchasing mostly small fingerlings, 2-3 inches long, rather than 6-inch fingerlings. Commercial fish farmers stock an average of 5,000 trout each, with an average survival rate of about 35 percent. Most of the commercial fish farmers in Saskatchewan stock fish in relatively small water bodies. The size of stocked waters used for commercial fish farms in 1982 was as follows:

Size (Acres)	Commercial Licences
Less than 1	6%
1 - 10	37%
11 - 30	26%
Over 30	31%

Commercial fish farmers in Saskatchewan do not utilize, to any great degree, available technology for intensive aquaculture as they do in European countries.

In 1960, total European production from freshwater rainbow trout farming was 3,500 tonnes. By 1983, production was about 109,800 tonnes. The use of intensive aquaculture for marine and freshwater fish production has developed into a viable industry in Europe. Table 4.31 shows the growth in fish farming in western Europe from 1978 to 1983.

Table 4.31

FARMED TROUT PRODUCTION IN WESTERN EUROPE 1978 TO 1982, WITH ESTIMATES FOR 1983 (in tonnes)

Country	1978	1979	1980	1981	1982	1983*
Austria	1,300	1,400	1,500	2,400	2,300	2,300
Belgium	300	300	300	300	400	400
Denmark	17,500	17,900	17,500	21,700	20,600	21,000
France	18,000	18,000	19,000	24,000	25,000	26,000
Finland	3,300	3,600	4,000	5,400	5,700	6,000
Ireland	200	220	400	500	600	600
Italy	17,800	19,900	19,900	20,600	20,000	19,000
Norway	2,200	2,700	3,300	4,500	4,500	4,000
Spain	7,500	9,000	10,300	11,000	11,000	12,000
W. Germany	7,500	8,000	8,800	12,000	13,000	13,000
U.K.	2,770	3,100	4,200	5,200	5,500	6,500
Total	78,370	84,120	89,200	107,600	108,600	110,800

* Estimated

Source: National Aquaculture Conference, Ottawa; June, 1983.

The growth in the European industry is primarily due to the following factors:

- An improved understanding of the environmental and physiological regulation of the trout life cycle which in turn allows egg, fry and marketable trout production through an extended season per year.

- Increasing attention given by producers to market promotion of trout, and the increasing importance of the trout processing industry which is providing added value to the fresh product from farms, producing smoked trout, trout pates and filleted trout.

- A great improvement in the understanding of the economics and physiology of the conversion of pelleted trout feed into trout. This has resulted in increasingly efficient freshwater trout production with a narrow but significant gross margin of profit. Furthermore, aeration, recirculation and suspended solids treatment technology have enabled greater production per unit volume of available water.

- Establishment of intensive fish cultures whereby fish are fed in cages or raceways.

Methods of feeding fish in cages or raceways with flow-through or recirculating water supplies have not been widely implemented in Saskatchewan. Interest in this method of farming needs to be generated on a wider basis in the province and more experimental work should be conducted. The Saskatchewan Research Council is involved in some experimental work in the area of intensive aquaculture (hatcheries, cage-rearing, raceway rearing, and educational courses for fish farmers).

Saskatchewan could benefit economically from an expanded, viable commercial rainbow trout fisheries industry. Increasing the number of viable commercial fish farms in the province could be one of the means by which commercial pressure on public fishing waters could be reduced, thereby providing more opportunities for sports fishermen.

A well established commercial fishing industry, consisting of both small and large commercial operators who produce enough for local demand as well as for export to other provinces and the USA, could lead to the establishment of spin-off industries such as fish canning.

Fish Hatcheries

The provincial fish hatchery in Fort Qu'Appelle provides fingerlings for stocking of fish in public waters only. In 1985, three private fish hatcheries are operating in Saskatchewan. They will provide rainbow trout fingerlings to private and commercial fish farmers. Two of these three private fish hatcheries are in Saskatoon, and one is in Nipawin.

Most of the rainbow trout stocked in Saskatchewan in previous years were obtained from South Dakota and Wisconsin. Although the province now has three private fish hatcheries operating, there is still a substantial dependence on imported fingerlings.

Significantly expanded private and commercial fish farming in Saskatchewan would provide additional opportunities for private sector fish hatcheries. It is likely that any new commercial fish hatcheries in the province would face stiff price competition from USA hatcheries.

RECOMMENDATION

The Task Force recommends that the Government of Saskatchewan encourage and assist the further development of fish farming in Saskatchewan by:

- providing research funds to determine the market for Saskatchewan rainbow trout for both local and export demand, determine the viability of an expanded fish farming industry, and find more effective solutions to such problems as algae control, aeration, muddy flavour, and harvest recovery,

- providing more consultation and education on both extensive and intensive fish farming to commercial and private operators, and by
- making suitable Crown waters available for intensive or extensive private fish farming.

CHAPTER V

ORGANIZATION FOR LOCAL ECONOMIC DEVELOPMENT

The Task Force concluded that to achieve the goal of enhanced social and economic development in rural Saskatchewan will require action at both the provincial and the local or sub-provincial levels. Provincial action is needed in the form of new and revised programs and policies aimed at specific sectors of the provincial economy. At the local level, action is needed with more of a geographic focus, cutting across various sectors, and identifying development opportunities unique to an area.

The Task Force found that unlike most neighbouring provinces and states, Saskatchewan has a significant gap in organization for economic development at the sub-provincial level. In general, municipal organizations recognize the need for additional development institutions and efforts. In a 1984 report on the challenges of small and rural communities, the Federation of Canadian Municipalities recommended that provincial governments:

- assist small and rural municipalities in the preparation of economic development programs,
- emphasize co-operative economic development activities and efforts between municipalities, and provide supporting funds and advisory services on that basis, and
- prepare overall regional settlement plans and development programs to assist small and rural municipalities to manage their own development within an explicit government policy context.*

In their 1983 briefs to Cabinet, both SUMA (Saskatchewan Urban Municipalities Association) and SARM (Saskatchewan Association of Rural Municipalities) called for provincial involvement to assist communities in achieving a greater degree of locally based development.

During the Task Force's consultation process, government departments and Crown corporations were given the opportunity to state their views on rural development needs. Several referred to the cumbersome difficulties they currently faced in rural areas where large numbers of small local governments - in some cases up to 60 - had to be co-ordinated and communicated with in order to effectively implement provincially sponsored development projects. Many departments suggested that more effective rural development could be facilitated by supplementing existing local governments with new arrangements or institutions that would pursue economic development on an area or sub-provincial basis. Departments used a wide variety of expressions to describe these suggested new institutions, such as: "a corporate body structure . . . for several communities to work together to plan the economic and social strategy for the total area;" "a community based program which encourages communities to merge into larger regional structures by offering some incentive for doing so;" "the organizational principle of community involvement;" "an integrated network of private-public rural development self-help clubs;" or "more tools for economic development at the local level."

---

* Federation of Canadian Municipalities; "Task Force on Small and Rural Communities - Challenges and Opportunities Discussion Paper," 1984.

The Challenge

The Province of Saskatchewan needs to create effective mechanisms to both initiate and respond to rural development opportunities at the sub-provincial level. Experience in other jurisdictions and in Saskatchewan has shown that there are numerous opportunities for enhanced social and economic development at that level. However, many of these opportunities - at least initially - are small scale, with little impact or statistical visibility provincially. Nevertheless, the development of such opportunities is important when viewed locally in terms of economic, social, physical and even psychological impact.

The Task Force concluded that the existing structure and powers of rural and small urban municipalities are not ideally suited to the pursuit of development opportunities. The geographic area of these municipalities is generally small, their staff and financial resources are limited, and their main orientation is towards administration, regulation and the provision of basic municipal services. The Task Force agrees that these are positive characteristics which allow Saskatchewan local governments to maintain contact with the "grassroots" in providing needed municipal services and facilities. However, the Task Force has also concluded that additional institutions are required in rural Saskatchewan to supplement - but not supplant - existing local government efforts in the area of economic development.

The Task Force also noted an apparent lack of information in rural Saskatchewan regarding provincial, federal and other resources and programs that are available to assist with development at the local and area levels. Also, there is no identified individual or group with the mandate to search out development opportunities and to relate them to the information and assistance available from senior governments and the private sector.

Important also for the developmental process is the need for more education to stress that farm and small urban areas are socially and economically interdependent, and that there is a more secure future for all of them in greater voluntary co-operation and action on an area basis than in greater intermunicipal competition. The challenge therefore, is to develop a sub-provincial structure and an approach for development which will:

- encompass a geographic area that is composed of a number of urban and rural municipalities, that is logical from a development point of view, and that retains the existing municipal structure,
- instill an attitude of opportunity identification and entrepreneurship into the area,
- ensure that a wide range of interests are involved in the development process - including the local private sector - and not just the interests of local governments,
- provide for local initiative, control and investment,
- ensure that all relevant information is utilized in reviewing and implementing development opportunities, and
- provide an ongoing educational process stressing the economic and social interdependence of rural and urban municipalities in specific geographic areas.

Experience In Other Jurisdictions

As part of its study into local economic development, the Task Force looked into the experiences of nearby jurisdictions in both Canada and the United States. A small delegation travelled to Alberta and North Dakota to meet provincial, state and local officials involved with local economic development. Also, a representative of the Regional Resource Project #1 from Carbon, Alberta met with the Task Force in Regina.

Many other provinces and states have developed regional development corporations. For example, there are six regional development corporations in Manitoba, 12 regional development commissions in New Brunswick, and eight regional resource projects in Alberta. Essentially these corporations are bodies corporate made up of members appointed by each of the urban and rural municipalities within their defined areas. The most common method of funding such corporations is through a provincial government grant supplemented with a per capita contribution from member municipalities. The mandate of these corporations is to develop an identity for their regions, work with local entrepreneurs to develop economic opportunities, and to act as a clearing house and central point of contact regarding both development-related information about the region and information about central government programs and incentives.

Most such corporations employ a full-time manager/co-ordinator/animator who works with the corporation members, local businessmen and other leaders, serving as a point of contact with senior governments.

In summary, such corporations play a co-ordinating, promotional, liaison and regional lobbying role and do not frequently become directly involved in the financing or operation of development opportunities.

A variation of the regional development corporation model is the community development corporation (CDC). A CDC becomes actively involved in developing opportunities through taking equity in certain ventures, guaranteeing loans, or becoming financially involved in other ways.

CDCs thus become directly involved in creating income-producing businesses owned and controlled, at least in part, by the community. Such corporations can be based on a variety of legal structures: non-profit corporations, for-profit corporations, or co-operatives. CDCs are fairly common and have achieved considerable success in North Dakota, South Dakota, Montana and Wyoming.* Some of the regional resource projects in Alberta have been successful in developing local development companies to build and sell commercial buildings and housing in order to encourage development (see Appendix 1 for further background on corporations in other jurisdictions).

Experience In Saskatchewan

Saskatchewan has had and still has some organizations modelled on regional or community development corporations, although the provincial government has not generally actively promoted them. Appendix 2 at the end of this chapter reviews the initiatives that have occurred or that are currently in place in the province.

The Community Economic Development Program (CEDP) operated by Tourism and Small Business is the Province's major thrust in the area of local economic development. The program is designed primarily to assist individual urban municipalities with populations between 700 and 5,000 to organize to bring about increased economic development. There are over 50 communities participating in the program.

The Saskatchewan Government provides advice and assistance in organizing a local economic development committee, which in turn prepares a community profile showing the constraints and opportunities of the community. Potential new business opportunities identified during this process are promoted through newspaper advertisements paid for by Tourism and Small Business. The community receives grant funding of $4,000 to assist it in meeting the out-of-pocket expenses of the development committee, along with an additional reimbursement of up to $1,000 upon completion of a community profile. The Department will also match community participation to a maximum of an additional $4,000 for further development-related activity.

---

* Appendix 1 at the end of this chapter provides information on three CDCs in North Dakota.

The Task Force was impressed by the Community Economic Development Program, its successes to date and the generally good reception it has received in rural Saskatchewan. The Task Force believes that this program has provided a good foundation for a broader and more diversified program of local initiative in rural economic development.

AREA DEVELOPMENT CORPORATIONS (ADCs) - A PROGRAM PROPOSAL

To help provide the required sub-provincial framework for economic and social development and to encourage increased local initiative and investment in development opportunities, the Task Force recommends that the Province provide for - but not require - the establishment of area development corporations. This will require staffing, cost-shared funding, and preferably new legislation. Provincial financial incentives should be provided to encourage municipalities, the local private sector and other groups to form corporate bodies known as area development corporations. The major characteristics of ADCs are summarized below:

- An area would be defined by the group involved, but would be guided by provincial criteria to help ensure that the area is manageable in geographic size and has adequate human and fiscal resources to assume ongoing responsibility for the corporation and its activities.
- Minimum provincial criteria could require a combined area equalized assessment of at least $15 million (similar to the assessment of a city like Melfort), and a minimum of six urban and/or rural municipalities in a geographically related area. Although cities would not be excluded, they would not likely be major participants in ADCs.

An ADC would be operated by a board of directors composed of representatives from member organizations. The board would nominate its own chairman. Provision would be made for nonvoting members to represent groups that have an interest in area economic development, but who do not fund the corporation (such as a local Chamber of Commerce). The Province could have ex officio members on the board to provide liaison and co-ordination with the department responsible for the corporations.

Each ADC would recruit a full-time general manager to run its operations. The manager would promote the area, identify and market economic development opportunities, encourage local investors, assist in the establishment of VCCs and other means to implement opportunities, and assist municipalities and others to become aware of and utilize existing government programs and services. Once an ADC is established the Province would assist the board in hiring its first manager. Experience with the regional resource projects in Alberta has found that the most successful projects are those that have a:

- full-time manager with no other job-related interests,
- separate office that presents a professional and businesslike appearance, and
- full-time administrative support person.

The long-term goal of ADCs should be self-sufficiency. However, to encourage their establishment and nurture their development, some provincial funding would be required. Provincial funding would be justified since the economic development brought about in the local area would result in substantial overall benefits to the province. To enhance the chances of success, an ADC should have a predictable source of funding for an initial three to five year period. It is recommended that the Province be prepared to guarantee up to $50,000 per annum for three years for each ADC formed, with an option for an additional two years of funding at the same level, dependent upon the success of each individual ADC. Such provincial funding should be provided only after the area has provided sufficient evidence of its financial commitment to the project by providing at least 20 percent of the ADC budget.

The method of raising the local share of ADC funding would be determined by each area board. The department responsible for the corporations should be prepared to assist the board in initially determining the most appropriate way to apportion local costs. In Alberta the projects with the highest local funding contribution have been the most successful. Per capita local contributions there range from 66¢ to $4.15, with the average being $2.30.

To ensure good business practice, the Province should require that each corporation prepare an annual budget, set of objectives and work plan. These should be submitted to the department responsible, for information only. Each corporation should also prepare an annual audited financial statement and submit it to the Province for information.

During the fifth year of a project, a major evaluation of its success and future prospects should be carried out by an independent consultant paid for by the Province. Subsequent to the fifth year, the Province should be prepared to provide differential funding to each ADC dependent on its degree of success and self-sufficiency. After the fifth year there should be no minimum provincial funding guarantee, and different ADCs could expect to receive different amounts.

Opportunity Strategy and Education

As part of the program, the Province should provide one-time 80/20 cost sharing to a provincial maximum of $50,000 for each ADC to prepare an area opportunities strategy. The main purpose of this assistance would be to help the corporation identify socioeconomic development opportunities and thereby provide it with an initial direction, framework and set of objectives. These would not be legally-binding plans requiring provincial approval, but rather, would be flexible strategies unique to the opportunities and constraints in each area.

One of the weaknesses in some of the rural resource projects in Alberta is that they did not have an adequate strategy or set of objectives at the outset and, as a result, had mixed success in enhancing economic development. The proposal for an initial opportunities strategy is an attempt to help overcome that problem. The department responsible for the corporations should be prepared to assist each corporation with the terms of reference, selection of consultants and management of the strategy. The high level of provincial cost-sharing makes this imperative.

A key part of an ADC program should be an educational and training program to ensure that board members and managers would be well-versed in economic development, leadership and group decision-making techniques. This training would be delivered through the department responsible for the corporations, by staff or by consultants. In an evaluation of its projects, Alberta has determined that additional training in these areas is needed.

Provincial Resources Required and Evaluation Criteria

A small provincial staff unit of four persons (three professional, one secretarial) would be required to:

- explain and promote the idea of the area development corporations, including the education program noted above,
- assist municipalities and other groups in the establishment of corporations,
- provide a research and policy function for the Province and the corporations in the field of rural development,
- develop and maintain the related legislation and program, and
- monitor ongoing government programming for its rural development implications.

An advisory committee could be formed to obtain the input of related interest groups in detailed program design and in the early phases of implementation. Such a committee could include representatives from SARM, SUMA, UMAAS, RMAAS, Rural Development, Urban Affairs, Tourism and Small Business, and the University of Saskatchewan.

Since no existing legislation is fully adequate, consideration should be given to enacting new legislation to provide for the establishment of both ADCs and CDCs (Community Development Corporations) discussed in the next section, and for such things as provincial financial assistance.

The following criteria could be used by the Province to evaluate the effectiveness of area development corporations:

- new sources of private, capital investment attracted to or developed in the area, including establishment of VCCs,
- new sources of public capital investment attracted to or developed in the area,
- increase in intermunicipal co-operation, sharing and co-ordination,
- increase in the utilization of existing infrastructure and resources in the area, and
- increase in employment in the area.

COMMUNITY DEVELOPMENT CORPORATIONS (CDCs) - A PROGRAM PROPOSAL

In addition to providing for and encouraging the formation of ADCs, the Task Force believes that the Province should foster establishment of community development corporations (CDCs). CDCs are locally based companies formed to implement specific development projects. CDCs would be empowered to sell shares to raise equity capital, invest in businesses and other opportunities, loan money and become involved in venture capital corporations. The CDC is a flexible vehicle which could be applied to a single project in a single community, a single project owned by several communities, or several projects owned by all communities in an area, depending on local priorities. In some situations CDCs might want to get a particular service or facility launched - such as a veterinary clinic - and then sell it to a private concern. The profits earned by a CDC on one venture could be plowed into other community or area projects.

A key advantage of CDCs is that they can be tailor-made to fit the characteristics and aspirations of the local people. The identified needs of the community would dictate the corporation's investment priorities. For example, a community with a large number of senior citizens might want to establish a CDC to provide taxi service within the community or part-time employment for senior citizens.

Although CDCs could return cash dividends to their shareholders if incorporated as profit organizations, their primary purpose within the context of rural development would generally be to benefit the community and area through increased employment, tax base, business volume, new facilities, or services.

CDCs could be established in communities that are not members of an area development corporation There is little doubt, however, that individual CDCs would benefit from the advice and assistance that could be offered at the local level by the full-time general manager of an ADC. The Task Force believes that this locally based approach would be preferable to individual CDCs relying on provincial staff for much of the assistance required.

INCENTIVES FOR LOCAL ECONOMIC DEVELOPMENT

The Task Force believes that the strongest motivation and initiative for local economic development should come from the local area itself. However, in order to demonstrate provincial commitment to and support of such local efforts, the Task Force recommends two supplementary provincial initiatives - a Rural Development Fund and a Program of Awards for Community Enterprise (PACE). These are outlined briefly below.

Rural Development Fund (RDF)

The establishment of ADCs and CDCs would result in increased economic activity in rural Saskatchewan. While many of the projects initiated by these new institutions would be able to access funding from existing government programs and the private sector, there may be activities that fall outside the normal program ambit or that have a high degree of risk. In such cases, a supplementary funding mechanism would be desirable to provide an incentive level of assistance.

In the USA, states such as Indiana, Connecticut, and particularly Wisconsin, have taken steps to establish state-wide financial support for community-based entrepreneurial efforts. In addition, many of the private foundations in the United States - such as Ford, Rockefeller, and Carnegie-Mellon - provide funding for special projects. The general lack of such institutions in Canada suggests the need for some government leadership in this area in this country.

The Task Force recommends that the Province provide a solution to this need by establishing a Rural Development Fund. Interest from the Fund would be used to finance a variety of rural development projects initiated by ADCs and CDCs.

Since development corporations would take some time to get established, the Fund could be developed gradually as well. The goal of a recommended $5 million fund in five years could be reached by setting aside $1 million per year, to result in an eventual ongoing annual operating fund of approximately $500,000 per year.

The five-year time frame could be compressed if the Province's fiscal situation improves and the demand for Fund assistance is high. Alternatively, the time to reach a full level of funding could be extended if fiscal conditions or level of CDC interest so required.

The day-to-day administration of the Fund and the necessary professional advice to the Board would be provided by the same staff responsible for area and community development corporations. Thus, direct staff costs related to the Fund would be small.

If the Rural Development Fund were established as a non-profit corporation, it might be possible to supplement provincial funding with donations from the private sector and from individuals with a stake in the development of rural Saskatchewan. The legislation recommended by the Task Force should provide for this option.

The Fund would be used to assist in the financing of a variety of projects in rural Saskatchewan by means of grants, loans or guarantees. Urban and rural municipalities, individuals and existing businesses would not be eligible. As well, normal municipal infrastructure projects such as sewer, water, sidewalks, streets, roads, bridges or municipal buildings would not be eligible for assistance even if sponsored by a CDC.

Funding under the RDF would not be provided for projects eligible for funding under some other provincial program or fund, such as the Agricultural Research Fund or the Market Development Fund. Stacking of RDF assistance with other provincial grants would not be permitted.

The amount of funding provided for individual projects should be sufficient to generate interest at the local level, but not so great as to compromise the goal of increased local initiative in economic development. While program details would be specified in regulations, the following general guidelines are suggested:

- the CDC should raise at least 50 percent of the cost of each project,
- assistance from the Fund would be up to 50 percent with a ceiling of $50,000 per project,
- no more than 10 percent of the annual Fund budget would be allocated to any single project, and
- projects could be funded over a maximum of three years within the ceiling indicated above.

In order to stress its long-term developmental role, the Task Force believes that the Fund should be administered by a "blue ribbon" Board on which the Government would have a minority representation. This Board should include representatives from such organizations as SUMA and SARM, as well as a number of "at large" rural people. The legislation should provide for rotating appointments to the Board to ensure continuity.

The Board would work with a set of regulations and some basic legislation in determining what projects were eligible for assistance from the Fund, and would have a small staff to assist it in analysing requests for assistance. This assistance would be provided by the staff responsible for area and community development corporations. Decisions of the Board would be final. The Investment and Financial Services Division of the Department of Finance would manage the Fund's investments.

Program Of Awards For Community Enterprise (PACE)

During its review of local economic development organizations in other jurisdictions, the Task Force was frequently cautioned that such development was a long-term process that took time to gain acceptance and interest at the local level. In view of this, the Task Force believes that the Province has a role to play in focusing more attention on rural economic development and in creating a climate that encourages and rewards local economic initiative.

The Task Force recommends that the Province develop an ongoing high-profile, low-cost promotion program in conjunction with the relevant municipal and development organizations. Communities would participate in the program on a voluntary basis to win recognition and perhaps small cash or other prizes for community enhancement in various categories. The program would be one way of raising community awareness and could lead to communities establishing ADCs or CDCs, or taking other development-related initiatives. A similar program in North Dakota has been credited with stimulating the initial drive leading to the establishment of some of the more successful CDCs in that state. The major components of PACE would include the following:

- Categories of competitions could include beautification, innovative design, productivity improvement, innovative solutions to public works problems, most active volunteer sector, and best example of urban/rural co-operation.

- Communities could enter one or more program categories on a voluntary basis for a small fee, which would be used to help defray program expenses.

- An external panel of judges would be established to review entries in various categories and select the winners on an annual basis. The Province should not be involved in the judging.
- Each participating community would receive a highway sign indicating that it is involved in the program.
- Winning communities would receive a plaque or other suitable recognition.
- The Province could host an annual event, such as a picnic - outside of Regina or Saskatoon - where the Premier or other Ministers could present awards to winning communities.
- Photographic displays of winning projects could be displayed at SUMA and SARM conventions and receive publicity in other ways such as feature articles and news stories.
- The program should be designed and implemented in conjunction with groups such as SUMA and SARM.
- Provincial program costs need not be large - perhaps in the order of $50,000 - $75,000 annually for promotional material, signs, and so on.
- Some costs would be defrayed by the community entry fee. As well, municipal suppliers could be encouraged to donate merchandise prizes.

RECOMMENDATIONS

The Task Force concluded that additional provincial action is required in order to ensure that rural Saskatchewan has the necessary incentives and tools to increase its level of local economic development. Accordingly, the Task Force recommends that:

1. The Province implement a program to encourage - but not require - the formation of area development corporations and/or community development corporations in rural Saskatchewan, with legislative, financial and other assistance as outlined in this chapter.
2. The Province establish an advisory group to assist with detailed program design and initial implementation, consisting of senior representatives from SARM, SUMA, UMAAS, RMAAS, Rural Development, Urban Affairs, Tourism and Small Business and the University of Saskatchewan.
3. The Province guarantee up to $50,000 per annum for three years to each ADC formed, with an option for an additional two years of funding at the same level, dependent upon the success of each ADC.

4. The municipalities and other local groups involved in an ADC be required to provide a minimum of 20 percent of the annual operating budget of the ADC, with the method of apportioning these costs to be determined locally.

5. During the fifth year of an ADC program, the Province pay the costs of an independent evaluation of the ADC, and based on the results of that evaluation, fund each ADC on a differential basis, depending on its degree of success and self-sufficiency.

6. The Province provide a one-time grant of up to $50,000 to each ADC formed to undertake an opportunity study for its area.

7. The Province establish a small staff unit consisting of three professionals and one support person to have responsibility for the development corporation program, Rural Development Fund, Program of Awards for Community Enterprise and other related rural development programs.

8. The Province, in conjunction with municipal and development organizations and the private sector, develop and implement a Program of Awards for Community Enterprise (PACE) to encourage community improvement and initiative.

9. The Province establish an ongoing Rural Development Fund of $5 million to provide financial incentives to community development corporations with innovative ideas, and that the Fund be administered by a "blue ribbon" panel operating at arm's length from the Government.

APPENDIX 1

COMMUNITY DEVELOPMENT CORPORATIONS - NORTH DAKOTA

There are over 100 community development corporations in operation in North Dakota. These corporations receive some advice and assistance in kind from the North Dakota Economic Development Commission, but they do not receive grants for operation. The activities of three such corporations are reviewed below.

Minot Area Development Corporation (MADC)

- A non-profit industrial and economic development corporation established to promote and facilitate the general development of the Minot area.

- MADC is run by a volunteer 19-member board and two paid staff persons. In addition, the president and executive of the Chamber of Commerce, and the mayor and county commissioner are ex officio members of the MADC Board.

- MADC prepares an annual audited statement which is provided to members of the Board, the City, the County and the local banks. MADC is funded annually as follows:

City of Minot	$21,000
Ward County	$15,000
175 Individual Members	$40,000
Total Budget	$76,000

- The 175 member businesses pay annual fees ranging from $75 to $1,850, depending on size of the business.

- MADC has $4.2 million in assets, largely in the form of two fully-serviced industrial parks in Minot, one started in 1969 and the other in 1976. Initially, $750,000 was raised from volunteer sources to get the parks established.

- Funds from land sales are going to pay off purchase and improvement costs. MADC is making no profit on the sales.

- MADC built a 77,000 square foot industrial building for lease. This has become somewhat of a burden. Lockheed Aircraft leased the space for a few years and left. MADC then had to spend considerable funds maintaining a vacant building for two years, and is now trying to sell it.

- About half of the industrial park lots are still unsold. Morris Rodweeder had an operation in one of the lots but has since left.

- MADC prepares community profiles and works closely with the Minot Chamber of Commerce. The Chamber of Commerce focuses mostly on attracting and promoting retail trade in the city, while MADC deals more with industry and manufacturing.
- MADC provided advice and assistance to development corporations in the nearby communities of Velva and Max in projects they have undertaken.
- Given its partial success with industrial parks, MADC sees itself dealing in the future more in the areas of promotion and advertising of Minot and area, and assisting existing businesses and industries through the provision of information and advice.

Velva Community Development Corporation

The city of Velva is located 28 miles southeast of Minot and has a population of 1300 people. The Velva Community Development Corporation was formed in 1973 with the stated purpose "to assist and encourage the development of the economic welfare of the community." It was initially formed with 50 members, with a $10 per person membership fee. This CDC has 11 elected Board members who do all the work on behalf of the Corporation.

The Velva Community Development Corporation is incorporated as a non-profit organization. The decision to organize as a non-profit corporation was based on the following reasons:

- to obtain broad community support, since profit corporations raise the concern that funds may be used to benefit members of the CDC rather than the community,
- to achieve greater flexibility and be bound by less government restrictions, and
- to enable the CDC to buy and sell shares, make loans, and have easier access to government programs.

The Velva CDC started out with $500 from the sale of membership fees and has very little working capital. Its working capital is obtained from federal or state governments, bank loans or contributions from other bodies such as the Chamber of Commerce. Since its inception, the Corporation has achieved an impressive list of accomplishments:

- Their first project was an 8-unit apartment building for retired people. The required capital was provided by a loan from the federal government. The Corporation operated the project for three years and then moved out. They established the Velva Rental Housing Corporation which operates the unit. The federal loan was repaid from the rental income generated.

- Their second project was a 12-unit apartment building and an 8-unit building for senior citizens.

- Their third project was a 46-bed nursing home. The nursing home was built with a $350,000 federal government grant to the town and a $500,000 federal loan. The town turned the grant over to the Corporation. The nursing home is now operated by its own board and the loan was repaid from nursing home income.

- A major accomplishment was to entice a sunflower processing plant to locate in Velva. A group of three investors was looking for a suitable site in North Dakota for a sunflower oil processing plant. They required 90 acres of land and a good water supply, in proximity to a good surface transportation network. Velva has an excellent aquifer, good highway close to Minot and a coal fired power generation plant.

  The Corporation received $1.2 million in federal grants. This was used to buy the land required for the plant, and to service the land.

  A deal was made with the power generation plant for the sunflower processing plant to buy the steam for seed crushing purposes. The seed hull in turn was sold back to the power plant for burning purposes to generate power.

  Before construction began, a feasibility study was undertaken at a cost of $12,000. The Velva Community Development Corporations's share was to be $4,000 (obtained from the town's Chamber of Commerce, Jaycees and the American Legion).

  Construction began in January, 1979 and the plant began operating in April, 1982. The cost of the project was $55 million and it employs 60 people on the average.

  The Minot Area Development Corporation attempted to have the plant locate in Minot. When they realized that Minot was not the preferred location, they assisted the Velva Community Development Corporation with government and political contacts.

- Another project of the Velva Community Development Corporation was downtown renewal. The Corporation borrowed $30,000 from the bank and purchased four lots with old buildings. The buildings were demolished. Now a new drugstore is on one of the lots which the Corporation sold for $15,000 and another lot for a parts store was sold for $7,000.

- The Corporation is currently attempting to attract investors for a greenhouse. Water from the power plant can be circulated through the greenhouse on a year-round basis. The Corporation was instrumental in initiating a feasibility study for this project. No decision has been made by any potential investors on this project.

One of the members of the Velva CDC indicated the following steps for forming a community development corporation:

- First present a challenge to a community - do you want to grow? If yes, a community development corporation can be an effective mechanism.
- If the enthusiasm is generated within the community, find community leaders to initiate the formation of the development corporation.
- The board members for the corporation should represent a good cross-section of the community and surrounding area (such as a farmer, lawyer, retailers and clergyman).
- Once the community development corporation is incorporated as a legal entity, its first tasks will be to:
    - inventory resources,
    - conduct a survey to determine what is required in the community,
    - use resources of the development corporation to fulfill the needs, and
    - undertake a fund raising project as required to initiate a project.

Max Community Enterprises Limited

The city of Max is located 27 miles south of Minot and has a population of 300 people. Max Community Enterprises Ltd. started in 1979 in response to the community's grocery store being on the verge of shutting down. The main aim of this development corporation is "community betterment" and the Corporation receives strong support from the farm population which utilizes the community's services.

The Max corporation is legally incorporated as a profit organization. It has nine Board members, one-third of whom are elected each year by the shareholders. The current Board consists of four farmers, one construction worker, one elevator manager, one teacher, one mailman, and the hardware store owner/manager.

The Max corporation does not pursue, at present, government grants or loans. It generates its operating budget through the sale of shares and, if required, a loan from the bank. There are currently about 150 shareholders in the corporation, and each share sells for $250. No shareholder can own more than 5 percent of the value of the outstanding shares. The corporation has paid a 3.5 percent dividend on stock every year. Each shareholder also receives a plaque which is mounted on the house in recognition of his/her contribution to the community of Max.

Although the Corporation has not attracted any new businesses to the community, it has preserved businesses which otherwise would have closed down:

- When the grocery store was about to close, the Corporation bought the grocery store, upgraded and refurbished it, and sold it to another operator. The store continues to operate in the town.
- The gas station operator in Max was in arrears and the oil company was going to shut the station down. The Development Corporation bought the gas station and sold it to a local couple at a small profit. The gas station continues to operate on a profitable basis.
- The Corporation bought up vacant lots in the community for future developments and is now planning to erect a modern building for a garage.
- The Corporation is currently attempting to maintain the "status quo" of the community. When interest rates drop it plans to expand its economic development activity.

APPENDIX 2

REGIONAL AND COMMUNITY DEVELOPMENT CORPORATIONS IN SASKATCHEWAN

Municipal Industrial Development Corporations Act

This Act, passed in 1960, provides for the establishment of municipal industrial development corporations for the purpose of fostering local economic development. The legislation permits city and town councils, private citizens, or a combination of both, to establish such a corporation. These corporations have all the powers conferred by The Business Corporations Act, and in addition they may:

- construct, acquire, repair or alter buildings for sale or lease to manufacturing or processing industries,
- acquire such land and facilities that may be required for use of such buildings, and
- grant loans to persons to assist in establishment of industries in these buildings.

With Local Government Board approval, a city or town may subscribe to the capital stock of an industrial development corporation.

At one time, such corporations existed in Swift Current, Prince Albert and Melville, but have since ceased operation. In 1983, Moose Jaw established an industrial development corporation.

This Act provides for a rudimentary form of community development corporation, but is unsuitable in its current form for rural development efforts since it applies only to towns and cities on an individual basis and focuses solely on industrial development.

NESASK

In the early to mid 1970s a regional development corporation developed in northeast Saskatchewan, centred in Nipawin and known as NESASK. While the corporation did receive some government funding, the corporation was short-lived.

Northwest Economic Development Council

In the late 1970s, the Northwest Economic Development Council was formed in the Battlefords-Meadow Lake-Lloydminster area. Initially the council was established to capture spin-off benefits from uranium development, and later from heavy oil development. In the last few years, the council has broadened its development objectives to include the identification of area constraints and opportunities in the resource and retail sectors. It is generally functioning as a regional development corporation.

The Council has a $50,000 budget and a staff of one (an executive director). The Province, through Tourism and Small Business, provides a grant to the Council for a portion of its operations, with the balance obtained from levies on member municipalities. The Council's board of directors is by and large made up of councillors from the 20 urban municipalities which belong to the council, and a number of independent business people.

From the viewpoint of rural development, it is significant to note that none of the rural municipalities in the area are members of the Council. Most opportunities that are developed are located in urban centres.

Northwest LEAD Corporation

The federal government, through the Department of Employment and Immigration, has developed a program known as LEAD (Local Employment Assistance and Development). The LEAD program is intended to create a locally based development corporation to increase the number of permanent jobs in communities with high chronic unemployment. The first LEAD Corporation in Saskatchewan is in the northwest area - roughly coterminous with the area covered by the Northwest Economic Development Council. In fact, the Council sponsored the creation of the Northwest LEAD Corporation.

The LEAD Corporation centred in North Battleford has a staff of four persons, along with an operating budget of $180,000 and a loan/investment fund of $350,000. LEAD staff carry out retail and small scale feasibility studies on their own and contract out larger studies related to manufacturing opportunities. As of March 31, 1984 LEAD had invested about $250,000 in new and expanded businesses in the northwest area, resulting in the creation of 46 jobs. The LEAD Corporation can take up equity positions and guarantee loans, and is considering the establishment of a venture capital corporation. Because the program criteria for LEAD Corporations put emphasis on areas with high unemployment, there is limited potential for future Corporations elsewhere in Saskatchewan. However, a second LEAD Corporation has recently been established in the Melville area.

SCRAD (Saskatchewan Committee on Rural Area Development)

SCRAD agrees that the approach of area and community development corporations in Saskatchewan has merit, and organized a conference around that theme in February, 1984. SCRAD has also held seminars regarding CDCs in North Battleford, Weyburn, Humboldt and Carlyle, and is considering organizing a tour to several of the CDCs in North Dakota.

CHAPTER VI

RESEARCH AND DEVELOPMENT

The future development and well-being of Saskatchewan will depend to a great extent on how successful the province is in undertaking productive research and development (R & D) activities. This is especially true in Saskatchewan, compared with many other areas in the world, for three main reasons: the province has a tremendous supply of valuable but undeveloped resources, the economy is still highly dependent on primary production and has only limited value-added development, and for most production and market opportunities the province is highly dependent on export markets. For effective development and market competitiveness, the province will need to be at the forefront of innovation and technological advances. This will require a strong supporting program of research and development.

The results of effective R & D on the structure of rural Saskatchewan have already been dramatic. Especially during the early decades of the province, the developments of earlier maturing and disease resistant grain varieties enabled Saskatchewan producers to farm successfully and provide a major impetus to the economic development of agriculture and the province as a whole. This was followed by further important technological advances such as in the rapeseed/canola industry, sawfly resistant wheats, and higher quality spring and durum wheat varieties.

Because of the nature of this province, agricultural and rural concerns will be of paramount importance for many decades in the future. It will continue to be vital to keep the agricultural industry in the forefront of agricultural science and technology. Thorough, carefully targeted research and development programs, and adequate facilities will be essential components.

Saskatchewan has become a province in which agricultural production is primarily dedicated to cereals and oilseed crops. Diversification into specialty crops has been limited and the livestock industry has declined. Efforts to identify, produce and process high value crops under irrigation have not been very successful so far, and much of the considerable irrigation potential remains unfulfilled. More emphasis on research could have a major bearing on the existing situation and future development of the province.

Major research effort has been directed at the primary production level, and while very good in some areas, such as cereals and canola, there are others (such as horticulture, irrigation and marketing) where efforts are low to almost nonexistent.

R & D efforts in some of the newer areas of development also need much greater emphasis. This is the case, for example, regarding the potential application in agriculture of genetic engineering; radiation technology; robotics, microchips and computers; and biomass processes in both primary and secondary agriculture. To be at the forefront of developments in such areas will require greater attention to and investment in research. The main agencies in Saskatchewan which carry out research relating to agriculture and rural Saskatchewan include:

- University of Saskatchewan,
- Plant Biotechnology Institute (NRC),
- Saskatchewan Research Council,
- Agriculture Canada,
- Prairie Agricultural Machinery Institute,
- POS Pilot Plant Corporation, and
- Veterinary Infectious Diseases Organization.

The Task Force has some concerns about the co-ordination of research in Saskatchewan. The Department of Science and Technology is attempting to monitor research programs of provincial departments and agencies, but a large proportion of the research related to agriculture and rural areas is carried out by federal government agencies.

There are also indications that research centres are inclined to disperse their efforts over a very broad spectrum of subject areas, with the result that the people, facilities and financial resources tend to be deployed in a non-targeted fashion. In Chapter IV, in the section on Secondary Industry, it was recommended that a Food Technology Council be established. It is hoped that such a body would provide much needed co-ordination in that area.

Most of Saskatchewan's food processing enterprises are too small to maintain their own research and development units, and many cannot justify a desirable level of quality control. This problem has been resolved in Alberta and Manitoba by the development of government food research laboratories. The laboratories in Alberta (at Edmonton and Leduc) are provincial. The laboratory in Portage La Prairie, Manitoba is federal. Its mandate includes all of the western provinces. However, it has a staff of only one-quarter that of Alberta's. The laboratories in both provinces are undergoing expansion.

Research is sometimes viewed as an expense that cannot be afforded. In general it appears that the view should be the exact opposite. Research is an investment, and a province like Saskatchewan cannot afford to not do the required research. This conclusion is supported by the data provided in Table 6.1, taken from a recent paper on "The Economics of Agricultural Research." With annual rates of return typically 35 percent or more, the Province should consider increasing its investment in research.

The rates of return to agricultural research are most often reported as average internal rates of return. The internal rate of return relates the cost of new technology to the discounted flow of its net benefits. The rates of return shown in Table 6.1 include only direct and tangible benefits. They exclude such indirect or intangible benefits as improved quality of certain foods and increased leisure time for producers. Table 6.1 contains a list of studies regarding returns to research in single commodities and to research in aggregate agricultural production. The estimated returns to research in single commodities range from 27 to 110 percent per year, while the average returns to research in aggregate agricultural production are generally lower and are concentrated in a narrower range from about 35 to 65 percent per year.

The high rates of return indicated in Table 6.1 suggest that in some areas of enquiry and development there should be considerable incentive for researchers to operate on a fee-for-consulting basis. This should be the case especially where the benefits of research can be captured. In some types of long-term, basic research this would not be very feasible despite high returns to research expenditures. Also, the benefits of some types of research are quickly dispersed among producers and consumers, both nationally and internationally, unless there are patent or royalty rights which can be strictly enforced. It seems reasonable that research rewards should at least in part be returned to research agencies that succeeded in achieving discoveries or technological advances. Public policies should encourage more research by private institutions by providing tax incentives or financial support.

The high rates of return to research indicated in Table 6.1 also raise the question of the role of the agricultural industry itself as a source of funds for research. There is no doubt that agriculture has benefited greatly from research and this suggests that this industry should pay at least part of the research costs. This appears especially important during periods of difficult budgetary constraints of senior governments, such as prevailed in 1984 and continue in 1985. As a minimum it appears reasonable to work toward more co-operative funding in which the industry would use a system of check-offs (as on product sales) as a source of research funds to pay for at least a portion of research costs. Such funds could be matched with funds from senior governments.

Table 6.1

ESTIMATED RETURNS TO AGRICULTURAL RESEARCH IN SINGLE AND AGGREGATE COMMODITY STUDIES, SELECTED STUDIES

Study	**Location**	**Commodity**	**Time Period**	**Annual Internal Rate of Return(%)**
Zentner, 1982	Canada	Wheat	1946-1979	39
Sim and Araji, 1980	USA	Wheat	1945-1974	27-42
Nagy and Furtan, 1978	Canada	Rapeseed	1960-1975	95-110
Hayami and Akino, 1977	Japan	Rice	1930-1961	73-75
Barletta, 1970	Mexico	Wheat	1943-1963	90
Tang, 1963	Japan	All crops and livestock	1880-1983	35
Evenson and Jha, 1973	USA	All crops and livestock	1953-1971	40
Peterson and Fitzharris, 1977	USA	All crops and livestock	1937-1942	50
Peterson and Fitzharris, 1977	USA	All crops and livestock	1947-1952	51
Peterson and Fitzharris, 1977	USA	All crops and livestock	1957-1962	49
Peterson and Fitzharris, 1977	USA	All crops and livestock	1957-1972	34
Davis, 1979	USA	All crops and livestock	1949-1959	66-100
Davis, 1979	USA	All crops and livestock	1964-1974	37
Brinkman and Prentice, 1981	Canada (Ontario)	All crops and livestock	1950-1972	65-68

Sources: Zentner, Robert P. "An Economic Evaluation of Public Wheat Research Expenditure in Canada," unpublished Ph.D. thesis, University of Minnesota, 1982.

Brinkman, George L. and Barry E. Prentice. "Agricultural Research - a 40 to 1 Return on Investment!" Highlights of Agricultural Research in Ontario, Vol.4 No.2, June 1981.

References for all other studies are found in: Ruttan, Vernon W. Agricultural Research Policy, Minneapolis; University of Minnesota Press, 1982.

Agricultural Institute of Canada, "Agronews," September, 1984.

Following is a brief discussion of the status of research and development related to selected major components of agricultural production.

Crops

For cereal crops, and particularly hard red spring wheat, commendable and effective research has resulted in good varieties for yield, quality, disease resistance, and adaptation to the growing season and conditions found in Saskatchewan. Soft wheats and winter wheats have only recently been receiving attention and sustained research is necessary to develop the characteristics and qualities required. Insufficient attention has been given to suitable cereal crops for irrigation production. To quite an extent, varieties developed for dryland conditions are being irrigated. In the case of rapeseed, a strong research and development program has led to the development of low erucic varieties known as canola. Only very modest production research has been undertaken regarding specialty and horticulture crops for either dryland or irrigation production.

The processing of major field crops is less well developed than primary production. Milling industries have declined appreciably, and currently there is only one operating vegetable oil extraction and refining plant in Saskatchewan (CSP at Nipawin). Two industries which have emerged in recent years are the malting plant at Biggar and the noodle plant at Mossbank.

There are two facilities, the Plant Biotechnology Institute and the POS Pilot Plant, both in Saskatoon, which relate to the whole range of food processing. Both have strong capabilities but are underutilized by Saskatchewan firms. Unfortunately it appears that there are not a large number of Saskatchewan firms who feel they have a need for these services.

Livestock

In the livestock industry, the Prairie Swine Centre and the Beef Cattle Research Unit, both at the University of Saskatchewan, carry out production research and offer services to primary producers. The Agriculture Canada Research Station at Melfort also has a livestock research and development program.

Research and development at the processing level appears to be largely an in-house function at individual abattoirs. In general, facilities in Saskatchewan for research and development pertaining to processing of livestock products are very modest.

Market research for meat products is minimal. Most firms do their own, with occasional requests to government for assistance. Some government assistance has been provided in export of breeding cattle to other countries.

Fibre

Research and development pertaining to fibre has been related primarily to attempts to utilize crop residues for various purposes. Currently the Saskatchewan Research Council is providing some assistance in the area of utilizing flax straw for fibre.

Socioeconomic Research

The biggest gaps in Saskatchewan research and development appear to be in the economic and social areas. As indicated above, the emphasis has been on production-oriented research. Unfortunately, this has resulted in an incomplete assessment of many development and market opportunities. In quite a number of areas considered by the Task Force to have development potentials, it was evident that not enough research had been done on feasibility studies, economic viability, and market opportunities. This was the case, for example, regarding horticultural crops, minimum tillage rotations, soil conservation, irrigation development and farm size. In broader areas, there appeared to be major deficiencies in research in such areas as transportation rationalization, senior government livestock and feed grain policies, agricultural diversification or intensification, and farm economics.

Since socioeconomic research tends to be relatively low-cost compared with most types of research in the physical sciences, and since such research is crucial to sound decision-making with respect to policy and program development, a substantial increase in such research should be undertaken. There appears to be a major responsibility for the provincial government in this area. Critical needs appear to be for more direction to or liaison with research agencies, and the provision of adequate funding.

Research Funding by Saskatchewan

In 1983/84, about 1.3 percent of the budgetary expenditures of the Government of Saskatchewan was spent on scientific activities. Of this amount ($42,091,000), 73 percent was used for natural science activities. The major support for research and development in this area was provided through the Departments of Agriculture, Energy and Mines, and Health, and the Saskatchewan Research Council. Social science activities in 1983/84 accounted for 27 percent of the total 1983/84 Saskatchewan Government science expenditures. This was provided largely through the Departments of Justice, Social Services, and Health. The provincial government itself performed about 58 percent of the scientific activities in 1983/84. However, only 22 percent of the research and development was undertaken by the government itself - the university sector did 15 percent, industry 13 percent, and the Saskatchewan Research Council 10 percent. Of the $42,091,000, 83 percent was provided from provincial department budgets and 6 percent from the federal government.

Table 6.2 shows the estimated expenditures by the Government of Saskatchewan for research and development in 1984/85 in all sciences. This $25,777,000 does not include the expenditures for research and development provided to the universities through the Department of Advanced Education. For 1984/1985 it is estimated that the universities received about $27,689,000 for research and development from Advanced Education. This provided funding for research and development undertaken by faculty members, other research scientists at the universities, and postgraduate students. It is evident in Table 6.2 that the proportion spent on rural development (including agriculture) is relatively small. This explains in part why Saskatchewan development is lagging, and highlights the need for research and development in such areas as food technology and processing, irrigation development, biotechnology, rural economic development, and diversification of the economic base of Saskatchewan.

It is quite clear in Table 6.3 that the total expenditures on R & D in Saskatchewan are much lower than in Quebec, Ontario, Alberta and British Columbia. On a per capita basis, Saskatchewan is also much lower than Quebec, Ontario, Manitoba and Alberta. These figures suggest that one reason for Saskatchewan's slow development in areas like irrigation, food processing, diversification and intensification may be the inadequate investment in R & D. This conclusion is strongly supported by some of the sections in Chapter IV on Economic Development. This is a matter of major importance and urgency which the Government of Saskatchewan should evaluate as soon as possible. If the deficiency is as great as suggested in Table 6.3, corrective measures should be taken accordingly.

For more effective irrigation development, the Task Force has concluded that more research is required on suitable crop varieties, cultural practices, processing (methods, facilities, costs, products, etc.), and markets (location, size, competitors and barriers to entry). Similar questions and issues need to be researched with respect to specialty dryland crops.

For further development of Saskatchewan's livestock industry, there are many areas that need research, including the processing level (including products, economics and technology), and markets (location, demand, competition and entry opportunities). Since Saskatchewan exports most of its grain and oilseed crop in raw form, similar processing and market research is required regarding these crops. For example, there may be significant opportunities in the production of alcohol products, starch, processed foods and feeds, and milled products.

From the above, it is clear that there is a need to enhance the research and development capacity within the province if Saskatchewan is to achieve developments such as the following:

- development of the provincial irrigation potential, particularly in terms of crops other than wheat and forage,
- successful entry into production of a range of horticulture products and their further processing,
- production and processing of dryland specialty crops,
- processing of at least a portion of conventional dryland crops,
- building an enhanced livestock industry including breeding, feeding, and processing (especially cattle, hogs, dairying and poultry), and
- rural economic development, including both social and economic aspects.

To achieve the above would require a substantial increase in funding for research and development, including more funding for operating existing research agencies within the province and to enlarge research units as required. The inadequacies in the College of Agriculture have been clearly documented and are urgently in need of a positive decision by the provincial government. Basically, since Saskatchewan already has a wide range of provincial, federal, university and private organizations or institutions for research, it should not be necessary to establish new research institutions except to deal with major new thrusts such as should be considered for irrigation development or food processing.

A minimum target should be to increase the expenditures on research and development by at least 50 percent during the next five years. This would help overcome most of the current serious limitations and permit undertaking research and development in critical additional areas which are now virtually neglected - to the detriment of provincial development. To achieve this would require an increase in annual research and development expenditures of about $12.5 million by 1990.

To utilize the additional (and current) funding to best advantage, there is a need to minimize the overlaps in research, and to create a more effective provincial vehicle to develop and co-ordinate provincially-funded research and development. Some of the recent reorganizations within the government (such as the establishment of the Saskatchewan Water Corporation and the Department of Science and Technology) are major steps forward in reducing overlaps and confusion, but further effort is required.

Table 6.2

GOVERNMENT OF SASKATCHEWAN EXPENDITURES ON R & D IN ALL SCIENCES, BY DEPARTMENT OR AGENCY AND PERFORMER 1984-85 (Estimated)

(In Thousands of Dollars)

Department or Agency	Intramural	Industry	Universities	Hospitals and Health Organizations	Saskatchewan Research Council	Other	Total
Agriculture	550	35	4,259	-	25	326	5,195
Cancer Foundation	395	-	-	-	-	-	395
Culture & Recreation	35	-	-	-	-	-	35
Energy & Mines	384	4,251	360	-	505	55	5,555
Environment	-	-	200	-	-	-	200
Executive Council	73	-	-	-	-	-	73
Health	1,442	-	906	75	40	-	2,463
Highways & Transportation	200	5	-	-	5	30	240
Parks & Renewable Resources	858	120	23	-	-	4	1,005
Science & Technology	54	2,000	1,490	-	950	-	4,494
Social Services	-	-	-	141	-	1,000	1,141
Supply & Services	543	86	-	-	20	-	649
Tourism & Small Business	-	-	-	-	63	-	63
TOTAL	**4,534**	**6,497**	**7,238**	**216**	**1,608***	**1,415**	**21,508**

* The Saskatchewan Research Council also has other sources of operating revenue (estimated to be $4,269,000 in 1984-85).

Source: Statistics Canada, 1983-84 Survey Results, Scientific Activities of the Government of Saskatchewan.

example, there may be significant opportunities in the production of alcohol products, starch, processed foods and feeds, and milled products.

From the above, it is clear that there is a need to enhance the research and development capacity within the province if Saskatchewan is to achieve developments such as the following:

- development of the provincial irrigation potential, particularly in terms of crops other than wheat and forage,
- successful entry into production of a range of horticulture products and their further processing,
- production and processing of dryland specialty crops,
- processing of at least a portion of conventional dryland crops,
- building an enhanced livestock industry including breeding, feeding, and processing (especially cattle, hogs, dairying and poultry), and
- rural economic development, including both social and economic aspects.

To achieve the above would require a substantial increase in funding for research and development, including more funding for operating existing research agencies within the province and to enlarge research units as required. The inadequacies in the College of Agriculture have been clearly documented and are urgently in need of a positive decision by the provincial government. Basically, since Saskatchewan already has a wide range of provincial, federal, university and private organizations or institutions for research, it should not be necessary to establish new research institutions except to deal with major new thrusts such as should be considered for irrigation development or food processing.

A minimum target should be to increase the expenditures on research and development by at least 50 percent during the next five years. This would help overcome most of the current serious limitations and permit undertaking research and development in critical additional areas which are now virtually neglected - to the detriment of provincial development. To achieve this would require an increase in annual research and development expenditures of about $12.5 million by 1990.

To utilize the additional (and current) funding to best advantage, there is a need to minimize the overlaps in research, and to create a more effective provincial vehicle to develop and co-ordinate provincially-funded research and development. Some of the recent reorganizations within the government (such as the establishment of the Saskatchewan Water Corporation and the Department of Science and Technology) are major steps forward in reducing overlaps and confusion, but further effort is required.

Table 6.2

GOVERNMENT OF SASKATCHEWAN EXPENDITURES ON R & D IN ALL SCIENCES, BY DEPARTMENT OR AGENCY AND PERFORMER 1984-85 (Estimated)

(In Thousands of Dollars)

Department or Agency	**Intramural**	**Industry**	**Universities**	**Hospitals and Health Organizations**	**Saskatchewan Research Council**	**Other**	**Total**
Agriculture	550	35	4,259	-	25	326	5,195
Cancer Foundation	395	-	-	-	-	-	395
Culture & Recreation	35	-	-	-	-	-	35
Energy & Mines	384	4,251	360	-	505	55	5,555
Environment	-	-	200	-	-	-	200
Executive Council	73	-	-	-	-	-	73
Health	1,442	-	906	75	40	-	2,463
Highways & Transportation	200	5	-	-	5	30	240
Parks & Renewable Resources	858	120	23	-	-	4	1,005
Science & Technology	54	2,000	1,490	-	950	-	4,494
Social Services	-	-	-	141	-	1,000	1,141
Supply & Services	543	86	-	-	20	-	649
Tourism & Small Business	-	-	-	-	63	-	63
TOTAL	**4,534**	**6,497**	**7,238**	**216**	**1,608***	**1,415**	**21,508**

* The Saskatchewan Research Council also has other sources of operating revenue (estimated to be $4,269,000 in 1984-85).

Source: Statistics Canada, 1983-84 Survey Results, Scientific Activities of the Government of Saskatchewan.

Table 6.3

DISTRIBUTION OF GROSS DOMESTIC EXPENDITURES ON R & D, CANADA AND PROVINCES, BY FUNDING SECTOR, 1982[1]

(In Millions of Dollars)

Province	**Federal Government**	**Provincial Government**	**Total Government**	**Industry**	**University**	**Private Non-Profit**	**Total[3]**	**Total Per Capita**
Newfoundland	35	2	37	1	11	2	51	$89.71
Prince Edward Island	6	-	6	-	-	-	6	48.90
Nova Scotia	77	2	79	9	21	-	110	129.15
New Brunswick	35	2	37	5	10	-	52	74.40
Quebec	252	78	331	444	128	23	973	150.16
Ontario	873	116	990	1,082	116	44	2,348	269.39
Manitoba	105	8	113	21	14	5	156	150.80
Saskatchewan	**46**	**10**	**56**	**31**	**23**	**1**	**114**	**116.43**
Alberta	115	76	191	203	54	5	474	204.44
British Columbia	110	21	131	99	43	6	290	103.90
Canada[2]	1,655	313	1,971	1,908	421	86	4,591	$186.39

[1] Gross Domestic Expenditures on R & D by Region, 1979-1982, Science and Technology Statistics Division, Statistics Canada.
[2] Includes the Yukon and Northwest Territories.
[3] Includes foreign sources of funds, and provincial research organizations.

NOTE: Totals may not add due to rounding.

Source: Scientific Activities of the Government of Saskatchewan, 1983-84 Survey Results, Statistics Canada.

Also needed is a more effective mechanism to establish research policies and priorities, and to provide provincial leadership for the recommended increase in directed research funding. This should have input not only from researchers and science administrators, but also from industry, including primary agricultural producers and processors. An advisory body on research and development to work closely with the Department of Science and Technology is recommended.

RECOMMENDATIONS

The Task Force recommends that the Government of Saskatchewan consider the following in the development of a more adequate and efficient provincial program of research and development:

1. Do not establish a new research and development agency, since Saskatchewan already has a wide range of provincial, federal, university and private organizations or institutions. However, give serious consideration to the establishment of research centres for major new research and development initiatives, such as for irrigation development or food processing, if it is decided existing research establishments are incapable of adequately handling what is deemed necessary.

2. Provide additional financial support to existing agencies to undertake the kinds of research and development required, and develop additional research and development capacities as required.

3. Establish a Research and Development Advisory Council responsible to the Saskatchewan Minister of Science and Technology to help determine research and development needs and priorities, evaluate research and development proposals and submissions, and monitor progress and effectiveness of programs or projects funded by the Government of Saskatchewan.

4. Increase the annual provincial funding for research and development by $12,500,000 by 1990. This is required to effect the research and development embodied in the above recommendations, and to facilitate the economic and social development of Saskatchewan. To be effective, the additional funding should be provided for targeted or directed research in harmony with provincial needs.

5. Enact and proclaim legislation to enable the various sectors of agriculture to collect check-off revenues from product sales to help fund agricultural research. Consider combining this with a program of matching grants to provide for co-operative research funding for some types of research.

6. Encourage more research by private individuals and agencies by providing tax incentives and/or supporting research grants.

CHAPTER VII

ROADS

Saskatchewan's municipal road network consists of 103,170 km of locally funded routes and 54,330 km of provincially assisted main arterial routes. Table 7.1 illustrates the magnitude of the various categories of roadways in the province. Provincially funded municipal roads are currently divided into eight major categories, and a brief description of each follows.

The Grid Road System

This program commenced in 1956 with the designation of 19,000 km of all-weather interconnecting municipal roads. The system was later expanded to 26,000 km and completed by April, 1976.

As of March 31, 1984, 19,780 km remain in the grid system. Reconstruction assistance varies according to local conditions but averages about 55 percent provincially. Maintenance grants are based on traffic volumes and vary from $90/km to $180/km per annum. Although no assistance is available for oil surfacing, 319 km have been upgraded to dust-free status.

Main Farm Access Routes

The Main Farm Access Program commenced in 1967 as a secondary grid system. This network provides all-weather gravelled roads to farm sites and provides interconnecting routes between major arteries.

Provincial assistance for construction varies according to the revenue sharing equalization grant formula base, but averages 72 percent provincially. Reconstruction assistance varies in the same proportion and averages about 55 percent. No assistance is provided for oil surfacing. Maintenance assistance is provided at the rate of $60/km per annum.

As of March 31, 1984, 22,864 km (76 percent) of all main farm access roads were completed to standard, with 67.5 km oil surfaced. The main farm access system has been completed in 103 RMs.

Table 7.1

SASKATCHEWAN ROAD AND HIGHWAY NETWORK

(figures are approximations)

Provincial Highways	23,188 km	
Urban Streets and Northern Roads	25,312 km	
TOTAL		48,500 km

Municipal System

Approved Designated System (Provincially Assisted)

Primary Grid	8,000 km	
Grid	14,086 km	
Main Farm Access	29,935 km	
Resort	572 km	
Industrial Access	216 km	
Oil Access	742 km	
Reginal Park	734 km	
Indian Reserve Access	45 km	
TOTAL		54,330 km

Municipal System (No Provincial Assistance)

Local Access	65,850 km	
Land Access	37,320 km	
TOTAL		103,170 km
Prairie Trail		25,300 km
		231,300 km

Designated Roads in Indian Reserves

Grid	375 km
Main Farm Access	385 km
Resort	4 km
TOTAL	764 km

Source: Planning and Research, Saskatchewan Department of Rural Development, October 1983.

Primary Grid System

This program officially commenced in 1977. Completed links are often referred to as "super grids." The network includes almost 8,100 km of the most important municipal roadways in the province. All primary grids are numbered for easy recognition by the travelling public. North-south routes are given a "600" number and east-west routes bear a "700" designation.

Provincial assistance for primary grid construction, reconstruction and surfacing varies with local conditions but averages about 70 percent on a province-wide basis. Maintenance assistance varies according to traffic volume and ranges from $90/km to $180/km per annum. Oil surfacing maintenance is provided at the rate of 50 percent of actual costs. As of March 31, 1984, 2,738 km (36 percent) of this network had been constructed to standard and 899 km (10 percent) had been oil surfaced.

Industrial Access Roads

In 1977 the Province consolidated the existing industrial road programs by cancelling the Department of Highways and Transportation (DHT) program and establishing designated road assistance through Rural Affairs Revenue Sharing. These routes are designated to handle large volumes of heavy weight-load traffic, or as stub routes to specific industrial locations.

Construction assistance is generally at the allowable maximum of 80 percent. Reconstruction assistance varies with the main farm access rate applicable, plus 20 percent, to average about 75 percent. Maintenance assistance is provided in relation to traffic volumes and varies from $90/km to $180/km per annum.

As of March 31, 1984, 795 km (86 percent) had been constructed to standard. Some roads may bear a dual designation (e.g. primary grid - industrial) to allow for extra assistance for oil surfacing or reconstruction costs. However, those routes solely designated as industrial access roads are not eligible for assistance for oil surfacing.

Resort Roads

This program provides assistance to municipalities to construct and maintain routes that carry a high percentage of tourist and resort-oriented traffic.

Provincial assistance varies according to the applicable main farm access rate, but averages about 78 percent for both construction and reconstruction. The maximum allowable rate is 90 percent. Maintenance assistance is the same as for grid and primary grid routes, from $90/km to $180/km based on traffic flow rates. Oil surfacing assistance is not available. As of March 31, 1984, 439 km (77 percent) of these roads were constructed to standard.

Regional Park Roads

These roadways are designated as special access routes to regional parks. Construction, reconstruction and oil surfacing assistance are provided to a maximum of 90 percent, which also appears to be the provincial average. Maintenance assistance is provided at the same rate as for primary grid routes (e.g. $90/km to $180/km based on traffic counts, plus 50 percent of oil surface maintenance costs).

As of March 31, 1984, 348 (76 percent) of these routes were constructed to standard, with 124 km oil surfaced.

Indian Reserve Access Roads

This program began in 1979 to provide municipalities with assistance in constructing all-weather access routes to Indian Reserves. The Province pays 80 percent of the initial cost of construction and gravelling, with $60/km maintenance assistance per annum. The Province provides 20 percent funding on roads constructed within Indian Reserves under a cost-sharing agreement with the federal government, which picks up the remaining 80 percent.

Urban Connector Links

The Province assists urban municipalities in completing the construction of a designated route that also forms a part of an urban street or roadway. The rate of assistance for construction, reconstruction and oil surfacing is limited to 70 percent of the maximum allowable cost of the same standard of road completed in the adjacent rural municipality. Maintenance is paid at the same rate as for the applicable designated road to which the urban link is connected.

PROBLEMS

The Task Force concluded that there were several deficiencies in the funding approach and program delivery in the existing transportation system in rural Saskatchewan. These are examined below.

Complexity of Formulas and Designations

Shortcomings or inequities in the original grid system necessitated changes which added new designations of routes and new add-on programs to accommodate local conditions. This approach has been well received by local officials and ratepayers, mainly because it gives the appearance of applying specific solutions to individual requirements.

There are now eight main categories of provincially assisted municipal roadways, but cross-classifications have resulted in 24 different designations. Although a variety of complex methods is used to arrive at provincial levels of funding, the majority of the constructed routes are funded at 70 percent to 73 percent.

The main problem created by this system is related to the administration of the grant payments. Lengthy calculations are required to determine the amount of provincial assistance. Because the formula is complex, it is difficult to explain or to understand. Cross-classification and multiple designations to increase available assistance should not be required. If the existing system is inequitable, new programs should be developed to provide for the objectives desired.

The Task Force concluded that only four major classifications of roads should be needed in the designated system. A suggested reclassification system and schedule of assistance rates is provided below. The suggested system includes the possibility of placing some existing highway routes into the RM system. Before doing this, it would be important to consider the matter carefully in consultation with the SARM.

1. Intermunicipal Routes - Surfaced

This designation would include all primary grid roads which have been oil surfaced, as well as those low volume oil surfaced highway links removed from the provincial highway network. Road numbering should be consistent with the existing primary grid numerical system. A new road sign to indicate an intermunicipal route with a dust-free surface should be developed.

Maintenance to acceptable provincial standards should be encouraged by provision of maintenance grants at about 75 percent of actual annual costs.

Reconstruction and resurfacing allowances should be included for these routes in any new or revised revenue sharing scheme. Allocations should reflect the annual cost of rebuilding these links, and assistance to reconstruct should approximate 80 percent of actual costs with resurfacing allowances approaching 90 percent of actual costs.

It is estimated that 7,500 km of existing highway and municipal roads would qualify for this designation by the year 2005. Existing requirements are as follows:

High Cost Oil Surfacing	700 km
Primary Grid Standard	900 km
From DHT	2500 km

2. Intermunicipal Routes - Gravel

This designation would encompass all high volume, gravel surfaced connecting links in the province. Most of the existing primary grid routes, gravelled highway routes not eligible for oil surfacing, and a limited number of existing main farm access and grid roads with in excess of 100 AADT (Average Annual Daily Traffic) would fall into this category.

Municipalities should be eligible for construction and reconstruction assistance at or near 80 percent of actual costs. Maintenance assistance should be tied to traffic volumes and approximate 50 percent of actual costs. Numbering and signing should be consistent with the existing primary grid system.

These routes would be eligible for oil surfacing assistance if traffic volumes and weight loads warranted the expenditure (perhaps in excess of 150 AADT). Assistance should approximate 90 percent of actual cost. Completion of any given link should automatically result in a reclassification to the Intermunicipal Route - Surfaced category.

It is estimated that 6,500 km of existing highway and municipal roads would qualify for this designation by the year 2005. Existing requirements are estimated as follows:

From DHT	1500 km
Existing Primary Grid	3000 km
Existing Grid and MFA	500 km

3. Local Access Routes

This designation would replace all remaining grid, main farm access and low volume primary grid routes. Signing should be encouraged on all these roadways and could be identical to the existing grid road sign.

Construction and reconstruction assistance should be available at or near 50 percent of actual cost. Maintenance assistance should be limited to those roads constructed to standard and carrying in excess of 50 AADT traffic volumes. The existing rate of $60/km might be increased to 50 percent of actual cost.

It is estimated that 47,500 km of existing road links would qualify for this designation by the year 2005 without rationalization. It is likely that 5 percent to 10 percent of these routes could be eliminated by rationalization. Existing requirements are about 42,000 km.

4. Special Access Routes

All remaining designations should be grouped under one main category, with uniform assistance rates to indicate a high level of provincial support for these routes which carry non-typical municipal traffic.

These routes should be eligible for oil surfacing at 90 percent of actual cost. Construction and reconstruction assistance should be available at 80 percent of actual cost. Maintenance assistance should be at 75 percent of actual for oil surfaced routes and 50 percent of actual for gravel surfaced routes.

New signs should be provided to indicate provincial support of these special access routes.

Present requirements are about 1600 km, of which 350 km are oil surfaced. It is estimated that 2,000 km would be eligible for this designation by the year 2005, determined as follows:

High Cost Oil Surface Routes	300 km
Oil Surface Routes	200 km
Gravelled Service Roads	1500 km

Industrial Road Program

The desirability of a good network of highways and roadways to handle heavy truck traffic is well recognized as primary to the development of an industrial base. This is basic to the development of an adequate trucking industry which is supportive of economic development. There are three categories of industrial roads which are not adequately developed under the present Departments of Rural Development and Highways and Transportation policies:

Heavy oil development (especially in the northwest region),
High volume gravel haul (particularly in the Regina and Saskatoon areas), and
Timber haul (as in the Carrot River and Prince Albert areas).

The Task Force understands that the Government is reluctant to add to the highway system for purposes of industrial roads because of the stub nature of many of these roads and because of the undetermined duration of the various industrial requirements.

The rural municipalities are concerned that the present funding of industrial roads is inadequate under the revenue sharing program because:

- the total funds available for construction are not adequate to keep pace with industrial development in rural areas and construction costs exceed the financial resources of local government, and
- incremental maintenance costs due to industrial traffic exceed the resources of local government.

The current Industrial Road Program is being funded under revenue sharing. However, industrial development is not common to all rural municipalities and would be more appropriately funded from a separate fund aimed at promoting industrial development. Revenue sharing funds should provide normal services that are common to all rural municipalities.

Under the current situation if a higher level of funds were provided to service new industries, this would draw significant funds from the revenue sharing pool at the expense of municipalities that are not experiencing industrial growth. A good example of expanded industrial growth is in the heavy oil area around Lloydminster where rural municipalities are having difficulty keeping pace with the expanding oil industry. Mill rates in these municipalities are above average and are rising sharply as indicated in Table 7.2.

Table 7.2

MUNICIPAL MILL RATES
IN LLOYDMINSTER HEAVY OIL AREA

RM No.	**RM Name**	**1982**	**1983**	**1984**
352	Heart's Hill	78.1	82.0	83.3
471	Eldon	84.8	94.0*	96.5
472	Wilton	100.1	130.8*	132.1
501	Frenchman Butte	100.0	105.0	107.0
502	Britannia	115.0	123.3*	123.3
Municipal Average for RMs		95.6	107.0	108.4
Provincial Weighted Average (Municipal)		77.7	82.6	85.9

* Note: Reassessment in 1983. Mill rates for 1983 are weighted by factoring. 1984 represents 1983 x increase if applicable.

Source: Saskatchewan Department of Rural Development.

Funds in the Industrial Road Program are inadequate to provide the necessary funding to construct roads that are required during the development and expansion phase of the industry. Municipalities must borrow funds to construct these roadways and experience a considerable waiting period until the Province is able to pay its share of construction costs.

Many of the roads designated as industrial at present are rapidly deteriorating because of increased industrial traffic. In order to preserve both the provincial and local investment in these roads, it will be necessary to provide additional funding for maintenance of the main routes and, where warranted, provide for oil surfacing to preserve the road base.

Studies have shown that there is a considerable reduction in road users' costs if roadways are surfaced. Heavily used industrial routes present a potential safety hazard due to dust conditions.

Rural municipalities may receive substantial taxation revenues from new and existing industries that locate within their boundaries. Therefore, the Province should invest in road construction programs in such municipalities to the extent that the expenditure results in an expansion of the provincial economic base and therefore benefits all provincial residents.

The absence of an adequate industrial roads program has been a definite deterrent to economic development. Many RMs have been reluctant to accept industrial, commercial and residential development when faced with the prospect of borrowing large sums of money to finance the necessary road system. It is becoming increasingly difficult to convince councils to enter into new projects of this type when benefits will not accrue until several years later.

Rail Line Abandonment

The Transportation Agency of Saskatchewan (TAS) has published some data regarding the added costs of grain traffic on municipal roadways in areas where branch line abandonment has occurred. These findings are inconclusive and require further in-depth analysis before precise and firm conclusions can be attained. However, other agencies have also undertaken studies in this regard, and have indicated the nature and extent of additional costs to producers and local governments in areas where branch lines are removed.

The main problems with the TAS results so far are the following:

- No reliable model exists to measure the cost relationship between heavy load traffic and the maintenance of gravel roads.

- Rural municipalities do not keep accurate records of expenditures on individual stretches of roadway. Therefore, year by year comparisons can only be estimated.
- TAS has been primarily concerned with highway costs, and not with the impact on secondary municipal roads. Even the primary grid system has not been studied in depth by the TAS.

TAS estimates indicate that about 40 percent of our primary grid system is affected by branch line abandonment to the extent of requiring upgrading in the five areas they studied. On this basis, at least 40 percent of all primary grid roads would require substantial upgrading if abandonment proceeds as per schedule, and if assistance is provided for hauling to larger capacity, lower freight rate centres. This means over 3,000 km of primary grid will require upgrading by the year 2000.

Transfer of Roads to Department of Highways and Transportation (DHT)

Heavy traffic routes (in excess of 150 AADT) have been the subject of frequent discussion between rural municipalities and DHT. This is the result of two main factors:

- Increasing maintenance costs on heavy traffic routes have created heavy cost burdens to the municipalities.
- The desirability for dust-free surfacing of heavy traffic routes which most municipalities cannot afford under existing cost-sharing formulae.

The Saskatchewan Highways Minister for quite a number of years has been requested to take more municipal roads into the highway system, and each year has taken over more mileages of municipal roadways. This is viewed as undesirable by both the SARM and the Task Force because of the net loss of funding to the municipality transferring the roads, and because of the resulting erosion of local control over the road system.

The takeover of municipal roads by DHT is viewed as economically unwise from the Government's standpoint, for the following reasons:

- Cost of maintenance and construction becomes the entire responsibility of the Province. Even if costs were shared 95 percent-5 percent under a new arrangement, the Province would be financially better off by leaving the road under municipal jurisdiction.
- The public expectation of a road bearing a highway sign is that it is constructed to a higher standard than can be justified by the traffic volumes. If this is not done, there tends to be general discontent with the condition of the road surface. This results in political pressure to upgrade all highway

mileage to a dust-free, paved shoulder, four-inch asphalt mat surface. As a result, a road which should cost about $52,000/km cost shared with the RM to cost the Province $37,000/km, could end up costing in excess of $200,000/km.

- The DHT has received some criticism for its lack of adequate maintenance of certain roadways which have been taken over. Had funding been provided to the RM to assist in building the roadway, the responsibility for adequate maintenance would rest with the local council and not with the Province.

Almost without exception, municipal roads carry mainly local traffic (originating within a 25 mile radius). It appears only logical that these "local" roads should remain a "local" responsibility.

Oil Surfacing of Municipal Roads

The following quotation, from the Report of the Municipal Road Surfacing Commission, 1974-75, outlines the desirability of oil surfacing:

> *"The continual improvement of rural transportation routes in Saskatchewan is, and has always been, high in the priorities of the provincial government and rural municipal officials. These priorities led to the introduction of the grid road program in 1956 and the farm access program in 1965.*
>
> *The fact that the gravel supply is being rapidly depleted, together with the desire of the people for a dust-free and mud-free road system, is justification by those in authority to consider asphalt surfacing of a portion of the existing rural system.*
>
> *The need and desire for surfaced roads was well demonstrated to the Commission by the positive response of the rural municipal officials to the Commission's first official acts which were, firstly, to question municipalities by mail and, secondly, to follow up with a series of meetings to which officials of all municipalities were invited to express their views. The municipalities felt that the surfacing program was feasible, provided it was done under a cost-sharing plan between the Province and municipal governments, and providing the surfacing was carried out over a reasonable period of time."*

The Commission indicated that the following factors justify an asphalt surfacing program:

- There would be savings on construction costs. Many existing grid roads will have to be reconstructed in five or six years if they are not surfaced.

- Rapidly depleting gravel resources would be conserved.

- There would be lower snow removal costs, since it has been demonstrated that snow does not lodge as readily on a surfaced road as on a gravel road.

- Changes in the methods of transportation and marketing of farm products necessitates a higher standard of rural roads.

- Safety features are provided by asphalt surfacing. Statistics show that accident rates are approximately 40 percent higher on non-surfaced roads than on paved roads. The Commission recognized that other factors, such as higher standards, contributed to this safety difference, but was convinced that paving had been one of the main factors. The improved safety results especially from the elimination of serious dust problems on gravelled roads which greatly reduce visibility, and the reduction of danger from heavy and speedy traffic to vehicles and persons by gravel thrown from tires.

- An asphalt surfaced network of roads would tend to draw traffic from less improved roads and relieve the necessity of maintaining so many roads to high standard.

- Surfacing would tend to develop new residence patterns over a period of time. This would reduce the need for constructing additional roads to a high standard.

- With access to all-weather outlets, more farmers would be encouraged to remain in rural areas.

- The centralization of farm service centres has made it necessary for farmers to travel farther to obtain these services, and for this reason, better roads are required.

- It costs less to operate a vehicle on asphalt than on gravel. Information obtained by the Commission indicated that the cost of operating vehicles on gravel is 40 percent higher.

The conclusions of the Commission remain as accurate in 1984 as they were 10 years ago. The Commission envisaged completion of 8,000 miles of oil surfacing by 1985. This program has been a failure if actual results are compared to the original projections. In planning ahead it will be important to study the alternatives carefully, taking into account such factors as traffic volumes, traffic type, and soil conditions.

As of March 31, 1984 only 1,444 km were oil surfaced (10.5 percent of the original requirement). However, only 32 percent of the primary grid network has been built to full Department standard. Most of this network has been constructed to an all-weather (gravelled) standard and as such provides the required minimum standard of travel convenience, safety and access.

Municipalities have been more anxious to build as many miles of road per year as possible, rather than concentrating on short stretches of "super" grid. With the main farm access system nearing completion, more local funding will be available to reconstruct the majority of primary grid roads to full standard within the next 20 years.

Oil surfacing has not proceeded with more success due to both the high cost of construction and the rising costs of maintenance not being cost-shared in adequate proportion. The original concept of a 1½" (40 mm) asphalt mat is still valid for many applications. It is not adequate for the heavier weight loads and volumes experienced on the more critical road links. The failure of the Department to develop and proceed with upgraded standards and funding levels for oil surfaced roads, over the last five years in particular, could be the single largest contributing factor to this program's obvious lack of success.

Revenue Sharing Pools

The existing revenue sharing system is designed to encourage the construction of municipal roads under any of the eight classifications identified above. The formula does not recognize actual maintenance costs for surfaced roads, nor does it allow for reconstruction of the system in realistic dollar values.

Unconditional grants were originally designed to equalize the cost/ability levels between RMs. An analysis of mill rate levels over the last eight years indicates that the formula has only resulted in maintaining the "status quo," with no actual movement of funds from more wealthy RMs to those less able to finance their own requirements. Conditional grants are allocated on the basis of construction needs under the eight classifications. Municipalities have the autonomy to direct the funding to any eligible projects.

Because of a minimum $50,000 allocation and because of the substantial construction cost allowances for oil surfacing of primary grid routes, the allocations bear little reality to the actual construction and reconstruction programs of the RMs. The entire structure of grant funding dictates that municipalities:

- will build more roads as opposed to maintaining or reconstructing existing roads,
- will be encouraged to expand their designated road system ad infinitum,
- will discourage any municipal project which is not recognized as an allowable cost for grant purposes (virtually anything except roads), and

- will be encouraged to request provincial funding through DHT for all heavy traffic routes due to lack of reasonable allowances for actual maintenance and reconstruction costs.

Co-ordination of Provincial Transportation Initiatives

The Task Force concluded that the existing provincial structure is not conducive to either good planning practices or co-ordinated approaches in transportation policy. This became most evident when examining the grain transportation network in Saskatchewan, which should ensure adequate ground transport of agricultural commodities in the future.

Grain delivery points are being rationalized at an alarming rate. This is shown in Table 7.3 as of 1979. If grain companies wish to be located in only the major farm service centres, the question to be answered is: "At what population level does a community support the necessary commercial enterprises to be classified as a service centre?" If the answer is 1,000+, there are only about 60 communities that qualify; at 750+ there are about 35 more; and at the 500+ level the overall total would not exceed 150.

More than two-thirds of delivery points closed in the last five years have been the result of rationalization within the elevator system and have not been related to branch line closures. While the debate continues over who should pay the cost of upgrading rail lines, the centralization continues and the road network increasingly suffers from the added traffic.

Table 7.3

PRIMARY ELEVATOR CONSOLIDATION IN WESTERN CANADA, 1971 - 1978

	1971	**1978**	**Decline**	**Future Projection**
Sask Wheat Pool	1,224	748	39.0%	500
UGG	549	442	19.5	400
Alta. Wheat Pool	668	431	35.5	300
Pioneer Grain	327	295	10.0	150
Manitoba Pool	282	204	27.6	150
Cargill	226	175	22.6	135
Others	147	128	13.0	115
TOTALS	**3,423**	**2,423**	**29.2**	**1,750**

Source: Western Producer, June 28, 1979.

The maximum number of elevators occurred in 1933 at 5,758. From 1951 to 1974, 506 elevators at 248 locations were closed in Saskatchewan. Between 1971 and 1978 the number of multi-company delivery points dropped from 1,234 (63.2 percent) to 654 (46.9 percent). At present there are four inland terminal elevators in Saskatchewan (at Rosetown, Saskatoon, Moose Jaw and Weyburn).

It is difficult to imagine any more than 300 delivery points in the province by the year 2000. Some projections have indicated that as few as eight major terminal styled facilities strategically located could handle the entire cereal output with greater efficiency and resulting in lower unit costs than the existing system provides.

No matter how the future system is projected, it becomes apparent that there is and will continue to be a substantial shift from steel rail to rubber in the collection and delivery of cereal crops to market.

Political pressures have caused a massive injection of capital into the rehabilitation of branch rail lines which may not serve any useful purpose within 20 years. At the same time it appears that the Province has yet to address the problem of maintaining a road network sufficient to carry commodities to market in the absence of rail transport facilities.

Rail rehabilitation projects are costly ventures involving millions of federal dollars for a relatively small number of track miles. In many instances the "upgraded" line will not permit full loading of hopper cars when completed. In some cases the province receives only nominal economic benefits from branch line upgrading. The contractors, employees and suppliers have typically come from out-of-province. As indicated elsewhere in this report, the Province should request Ottawa to seriously reconsider its investment in branch line maintenance, especially since no increase in grain handling is achieved, grain is the only commodity shipped on the upgraded lines, and it is likely that increased truck transport of grain would be more economical to producers, the federal government, and the Province if additional investments were made to the road network. This problem is further compounded by the fact that, while rail rationalization should be a top priority given its economic inevitability, neither the municipal nor the provincial network appear to be planning beyond current requirements.

Summarized, the main problems appear to be:

- inadequate co-ordination between provincial transportation agencies in the development of policy,
- lack of co-ordinated or meaningful research into the benefits and costs of rail versus road transport, or into the shift of costs from the federal to provincial and municipal governments as a result of decreasing grain shipments by rail,

- limited rationalization of provincial road requirements, both highway and municipal,
- increasing costs for road maintenance with no corresponding increase in budgets,
- an absence of co-ordinated planning in the location and construction of road and rail routes, and
- the possibility of millions of federal and provincial tax dollars being invested in obsolete transportation networks because of the above problems.

OPPORTUNITIES

Having identified the major problems with the existing road programs of the Department of Rural Development, the Task Force believes that new programs to address these issues should:

- streamline the delivery of funding and the process of designation of roadways by the Department,
- limit the number of different road classifications to the lowest possible level,
- provide the rural municipalities with the required funding to address the problems associated with both high volumes and heavy weight load traffic,
- be responsive to rural transportation needs, thereby, eliminating municipal requests for transfer of essentially local roads to the Department of Highways,
- priorize both reconstruction of existing main rural arteries and the oil surfacing of all main rural arteries, and
- recognize the Province's current fiscal restraint will preclude massive expenditures in the short term.

There is a critical decision which should be made by the Province within the next year or so. This involves the choice of providing rural municipalities with improved road standards together with higher levels of construction assistance and maintenance payments for main rural roadways, or accepting the responsibility for these transportation links through the Department of Highways. This is especially important from an economic viewpoint, since the future growth and revitalization of rural Saskatchewan will be impeded if good transportation routes are not available.

Saskatchewan's main industry, agriculture, will become increasingly dependent on good municipal routes for the movement of commodities both to and from farms. Future and existing rail branch line abandonments together with subsidized trucking and variable freight rates add to this need.

Industrial and resource development in rural areas is being restricted by the municipalities' financial inability to provide the road infrastructure which supports these projects.

The alternatives considered by the Task Force can be summarized as follows:

- Retain existing system.

  This would result in deteriorating rural road standards, increased pressure for Department of Highways to take over existing municipal routes, and severely restricted economic growth in rural areas.

- Provide increased funding to Department of Highways to accommodate high volume municipal roads.

  As of March 31, 1984 there were almost 1,500 km of rural roads that required upgrading to maintain an acceptable standard of safe all-weather transportation to the motoring public. This will increase to over 4,000 km by 1990 given the present projections based on existing traffic patterns.

  If these roads are not to be maintained by the municipalities, substantial injections of capital funding and maintenance will be required for the Department of Highways' budget over the next five years.

  The existing arrangement whereby DHT has assumed some similar routes and not upgraded nor provided adequate maintenance due to underfunding is a highly undesirable alternative.

- Increased funding to rural municipalities for improved standards of rural roads.

  This is the favoured alternative because it provides the best economic return to the Province and the municipalities. Costs of construction and maintenance on a shared basis with RMs would minimize the overall outlay of provincial funding. The public perception of the overall transportation system would be improved. DHT would be allowed to concentrate on improving existing highways.

REQUIREMENTS

Short-Term (Immediate Implementation)

It is estimated that $120,000,000 in incremental construction and reconstruction costs will be required on heavy haul routes over the next 20 years (in constant 1984 dollars). A recommended 1985-86 expenditure of $2,000,000 would alleviate the most critical needs and would benefit 15 to 20 rural municipalities. The ongoing requirement in future years would approach $6,000,000 per year.

The Department of Rural Development has commenced a study of the designated municipal roads system which indicates that some rationalization of the road network is necessary. This study, when completed, should provide for a phase-in period of three to five years, which would allow a possible shift of existing funding into the major transportation routes. To avoid large downward funding shifts in the 219 rural municipalities not experiencing industrial and grain haul traffic problems, an injection of new monies earmarked to cover incremental construction costs is crucial.

It is recommended that a special capital construction account be established for the Department of Rural Development. The funds would be utilized to provide the incremental funding needed to upgrade heavy volume roadways to a suitable standard.

Medium-Term (1 to 5 Years)

1. Road Classifications and Rationalization

In co-operation with the rural municipalities and the Department of Highways, a consultative process should be undertaken which would identify all major roads in the province and classify them by traffic type, weight loads and volumes. Low volume roads now in the designated network should be reclassified as local municipal routes. Low traffic volume highway routes (probably those under 250 AADT) should be reclassified as intermunicipal routes and returned to the municipalities. Higher volume roadways should be considered for upgrading during the reclassification process.

This rationalization of the provincial road network would result in some major funding shifts between rural municipalities and would require either a phase-in period of about three years, or an entirely revised revenue sharing program to ensure adequate provincial funding to prevent massive mill rate increases in adversely affected RMs.

2. New Rural Road Designations

Based on the results of the reclassification and rationalization process, all municipal roads should be redesignated into a maximum of four categories.

Assistance rates for construction and reconstruction of major routes should be in the 80 percent range, with rates for oil surfacing approaching the 90 percent level. The lower volume (present main farm access) routes should be lowered to 50 percent to more reasonably reflect the local nature of the traffic they carry. Maintenance assistance should be consistent with traffic levels and bear a reasonable relationship to actual costs.

Signing should be encouraged on all provincially assisted routes.

3. New Revenue Sharing Formulas

The existing revenue sharing system will not provide sufficient funds to municipalities to adequately service the requirements outlined in 1 and 2 above. A new and more equitable system of distribution will be required and should recognize the following basic principles:

- Provincial assistance rates should be uniform throughout the entire province. If construction costs are above average, the unconditional or equalization grant should adjust accordingly. Ability to pay through local taxation should also be reflected in the equalization grant. Fluctuating assistance rates based on ability and cost of construction have done little to encourage construction in those municipalities with low assessments and/or high construction costs.

- The conditional grants should be divided into construction and maintenance categories.

  Maintenance grants should be paid on the basis of actual costs, as suggested previously, and the grants paid as the accounts are verified. Maximum rates for each area would be required to avoid excessive and unwarranted maintenance.

  Grants for construction, reconstruction and oil surfacing should continue to be allocated on a needs basis. They should, however, reflect the actual costs of completing each of these items over a 20 year time period. Each municipality would annually be allocated a prorated share of 1/20th of the total cost of building, reconstructing and surfacing all designated roads within their boundaries. The current practice of allocating will not provide for a complete recycle in less than 23 years.

- The unconditional grants should be revised to allow for such items as garbage collection, planning and development costs, policing, fire protection and municipal recreation projects.
- Allowable costs, including the RM's portion of designated road costs, should be calculated and compared with a provincial average mill rate. Those RMs whose mill rates will exceed the average would receive the equalization or unconditional grant, while those below the average mill rate would receive none.

4. Co-ordination of Provincial Transportation Policy and Initiatives

It is recommended that the Departments of Rural Development and Highways jointly undertake a research project into the benefits and costs of rail versus road transport. This is critical to negotiations with the federal government for funding under The Western Transportation Act.

It is recommended that Saskatchewan immediately request that one-third of the Crow Benefit funds be paid to the prairie provinces to help offset added costs to the transportation network resulting from increased truck traffic and decreased rail shipments.

5. Subsidized Debentures for Road Completion Projects

The Province should consider providing subsidies to rural municipalities who wish to borrow, through debenture issue, to complete road projects. This would provide RMs the option of using a portion of their annual conditional grants to repay debentures.

The existing "cash" system utilized by most RMs limits construction to only a few miles of road per year per municipality. Those municipalities which have worked beyond their grant funding levels have received the benefits of:

- lower overall construction costs,
- increased local employment,
- greater voter satisfaction, and
- a better road system.

6. More Flexible Design Standards

It is clearly evident that the lack of flexibility in road construction standards has been a deterrent to the success of the oil surfacing program. It is the opinion of the Task Force that each classification of road must retain a minimum standard which construction and/or reconstruction must meet to ensure a uniform provincial network. Maximum standards should be removed. Roads should be designed for a minimum 15-year life expectancy based on existing traffic patterns.

FINANCIAL IMPLICATIONS

Table 7.4 indicates estimated road construction requirements to the year 2005, assuming a 10 percent rationalization and 4,000 km of existing highways transferred into the municipal system. The cost of $816.5 million is the provincial share of the construction/reconstruction costs under the recommended new program. With the present allocation level of $23 million it would require 36 years to complete the estimated needs. A recycle in 20 years would require $40,826,000 per year, which is $17,826,000 more than the current allocation. This table provides strong support for the recommendation that at least a portion of the Crow Benefit should be paid to the Province for road and highway construction and/or upgrading.

Table 7.5 illustrates 1985 needs based on new cost sharing proposals and assuming that 4,000 km can be removed from existing designations. If the total estimated needs in 1985 are $540,110,000 as indicated in the table, the 1984 level of allocation ($23 million) would require 23 years to complete the program. To complete it in 20 years would require $27,005,500 per year - an annual increase of $4,005,500.

Table 7.6 illustrates estimated maintenance costs based on existing completed road links and the suggested schedule of assistance. Since the present allocation is only $3 million, an increase of about $9 million is indicated.

Restructuring and rationalization would account for substantial reductions in the unconditional grant requirements for about one-half of the 299 municipalities. It is estimated that $3 million to $4 million annually could be removed under the new structure without serious consequence.

Based on the foregoing assumptions, the 1985 budget provisions would compare with estimated requirements as follows:

Grants	**Existing Budget**	**Minimum Anticipated**
	(in millions)	
Construction/reconstruction	$23	$27
Maintenance	3	12
Unconditional/equalization	16	12
TOTAL	42	51

Table 7.4

ESTIMATED ROAD CONSTRUCTION NEEDS TO YEAR 2005

Intermunicipal Routes - Oil Surfaced

1,600 km of high-cost surfacing		
oil surface	1,600 x 73,000 x 90% =	$105,120,000
grading	1,600 x 77,000 x 80% =	98,560,000
5,900 km of oil surface		
resurface	3,300 x 20,000 x 90% =	59,400,000
regrade	5,900 x 15,000 x 80% =	70,800,000
oil surface	2,600 x 28,000 x 90% =	65,520,000
		399,400,000

Intermunicipal Routes - Gravel

6,500 km of gravel surface		
construction	3,500 x 24,000 x 80% =	67,200,000
reconstruction	3,000 x 15,000 x 80% =	36,000,000
		103,200,000

Local Access Routes

47,500 km of gravel surface		
construction	5,500 x 15,000 x 50% =	41,250,000
reconstruction	42,000 x 10,000 x 50% =	210,000,000
		251,250,000

Special Access Routes

300 km of high cost surface		
oil surfacing	300 x 73,000 x 90% =	19,710,000
grading	300 x 77,000 x 80% =	18,480,000
200 km of oil surface		
resurfacing	200 x 20,000 x 90% =	3,600,000
1,500 km of gravel surface		
construction	400 x 24,000 x 80% =	7,680,000
reconstruction	1,100 x 15,000 x 80% =	13,200,000
		62,670,000

TOTAL ROAD CONSTRUCTION NEEDS = 816,520,000

Source: Saskatchewan Department of Rural Development.

Table 7.5

ESTIMATED SASKATCHEWAN ROAD NEEDS, 1985 TO 2005

(Based on Current Programs and Policies)

Intermunicipal Routes - Oil Surfaced

700 km of high-cost surfacing		
oil surface	700 x 73,000 x 90% =	$45,990,000
grading	700 x 77,000 x 80% =	43,120,000
3,400 km of surfacing		
resurface	800 x 20,000 x 90% =	14,400,000
regrade	3,400 x 15,000 x 80% =	40,800,000
oil surface	2,600 x 28,000 x 90% =	65,520,000
		209,830,000

Intermunicipal Routes - Gravel

3500 km of gravel surface		
construction	3,000 x 24,000 x 80% =	57,600,000
reconstruction	500 x 15,000 x 80% =	6,000,000
		63,600,000

Local Access Routes

42,000 km of gravel surface		
construction	5,000 x 15,000 x 50% =	37,500,000
reconstruction	37,000 x 10,000 x 50% =	185,000,000
		222,500,000

Special Access Routes

200 km of high cost surface		
oil surfacing	200 x 73,000 x 90% =	13,140,000
grading	200 x 77,000 x 80% =	12,320,000
200 km of oil surface		
resurfacing	200 x 20,000 x 90% =	3,600,000
1,200 km of gravel surface		
construction	100 x 24,000 x 80% =	1,920,000
reconstruction	1,100 x 15,000 x 80% =	13,200,000
		44,180,000

TOTAL NEEDS, 1985	540,110,000

Source: Saskatchewan Department of Rural Development.

Table 7.6

ESTIMATED MAINTENANCE NEEDS, 1985

Intermunicipal Routes - Oil Surfaced		
800 x 1,300 x 75%	=	$780,000
Intermunicipal Routes - Gravel Surface		
4,600 x 700 x 50%	=	1,610,000
Local Access Routes		
37,000 x 500 x 50%	=	9,250,000
Special Access Routes		
350 x 1,300 x 75%	=	341,250
1,100 x 700 x 50%	=	385,000
TOTAL MAINTENANCE		12,366,250
43,850 km average cost	=	$282.01/km
Present Allocation	=	$3,000,000
Increase Required	=	$9,000,000

Source: Saskatchewan Department of Rural Development.

RECOMMENDATIONS

1. The Province should provide a new allocation of $2,000,000 in the Department of Rural Development for a capital construction account for 1985-86 to begin the upgrading of 1,500 km of heavy volume routes. The recommended allocation for ensuing years will be about $6,000,000 per year.

2. A joint research project should be undertaken as soon as possible by the Departments of Highways and Rural Development to determine the benefits and costs of rail to road rationalization to substantiate a request for a part of the Crow Benefit under The Western Transportation Act.

3. The Province should request that one-third of the Crow Benefit funds be provided to the prairie provinces for upgrading and/or construction of roads and highways which are required to replace rail branch lines which are abandoned.

4. In co-operation with rural municipalities and the Department of Highways, an immediate consultation process should be implemented to reclassify all roads in the province to reflect actual usage.

5. The Department of Rural Development should develop new cost-sharing formulas for reclassified routes, limiting designations to a maximum of four categories, and enhanced maintenance grants which accurately reflect the costs involved.

6. New rural municipal revenue sharing formulas should be developed to reflect the new cost sharing formulas indicated in No. 3 and to more accurately allow for other non-road related costs, as well as providing equalization to those municipalities with above average recognized costs.

7. The Province should study the feasibility of providing subsidy payments for debenture financing of large municipal road construction projects.

8. The Department of Rural Development should adopt minimum standards for construction of each new road designation with maximums flexible to allow for anticipated traffic requirements.

CHAPTER VIII

LAND

The relationships of man and land are diverse and laced with tradition and emotion. The Task Force concluded that four topics related to land are especially important because of their impact on the productivity and development of rural Saskatchewan: land degradation, the manner in which land is held by succeeding generations of owners, the need for provincial land use guidelines to facilitate development, and Crown land management.

LAND DEGRADATION

Saskatchewan has the largest amount of Canada's classes 1 to 4 land suitable for cropping. Forty-one million acres are "cropped" annually in Saskatchewan. This figure includes summerfallow acreage, but excludes millions of acres of perennial tame grasses and legumes.

Summerfallow is land cultivated or chemically treated during a full growing season to control weeds and store moisture in preparation for growing a crop in the following year. The practice of summerfallowing was introduced to Saskatchewan about 100 years ago.

Problems

Since about 1940 farmers have expressed concern about the spread of salinization which occurs when soil moisture rises to the surface and evaporates, leaving salts. In the 1960s soil scientists warned that the prairie soils, which are so vital to the region's prosperity, were rapidly deteriorating. The first warnings were the increase in salinity. In the last decade, greater emphasis has been placed on the loss of soil nutrients. Scientists have estimated that some soils which contained 8 percent organic matter prior to cultivation now contain 4 percent or less. Research also suggests that the area of cultivated saline soils in Saskatchewan has tripled since 1960, to over 4 million acres. Salinization is not limited to cultivated land, and is widely dispersed throughout the province.

Soil scientists suggest that many of the current land problems have resulted from the excessive use of summerfallow.

A prime indicator of the drain of soil nutrients is the loss of nitrogen. Prior to cultivation, land contained a storehouse of nitrogen as part of the organic matter accumulated during thousands of years of soil development. It has been estimated that about one-third of the nitrogen has been used up by growing crops. A major portion of nitrogen losses has been due to "cropping" practices, in particular summerfallowing and production of annuals such as wheat.

Some nitrogen is lost through the leaching of moisture to depths below the rooting levels of annuals, while other losses are due to denitrification (converting to a gas) and erosion. The accumulated organic matter and deeper rooted perennials of the precultivation era provided much more efficient use of precipitation, and restricted water movement within the soil. Water movement, both in the soil and on the surface, brought on by the rotation of annuals and summerfallow also contributes to salt depositions on the soil surface.

Many farmers now concede that they must reduce and perhaps discontinue summerfallowing. Recently, deep rooted, high water requirement plants (such as alfalfa) have been established to intercept water flows in problem areas. Extended cropping patterns have been increased, and many Saskatchewan farmers are experimenting with new methods of tillage. One alternative to summerfallowing is continuous cropping. Zero and minimum till are recent variations of continuous cropping designed to reduce tillage. Minimum till generally means only sufficient tillage to provide a seedbed. Zero till, on the other hand, refers to disturbing the soil only within the seed row, to the extent needed to plant the seed.

The Task Force strongly supports targeted research on soil management, and suggests that the research to date is not adequate. Tillage research is less than adequate and is inconclusive. Economic research into minimum and zero tillage, and the economics of changes in production systems that these practices require, are limited.

The grain delivery quota system established by the Canadian Wheat Board (CWB) encourages summerfallowing and cropping of submarginal land. This is evident in the way quotas are calculated. In the process, a base quota is determined by including the following components:

- all acreage seeded to wheat, oats, barley, rye, flax, and rapeseed-canola,
- all acres in summerfallow,
- an acreage allowance for perennial forage up to one-third of the acreage of the six main crops, and
- acreage of all other miscellaneous crops.

The acreage sum of the foregoing forms the base quota. An additional acreage "bonus" is calculated by taking one-third of the acreage in the six main crops and subtracting the combined acreage in summerfallow and miscellaneous crops. The bonus acres cannot be negative.

Examples of the impact of the quota system are shown in Table 8.1. This table shows the following:

- since summerfallow is included in the base quota acreage, there is an incentive to continue the practice of summerfallowing,
- the quota system discourages the growing of improved, perennial forage crops,
- the quota system encourages the breaking up of submarginal land and putting it into production, and
- the quota system encourages the growing of the six main crops.

Table 8.1

IMPACT OF CANADIAN WHEAT BOARD QUOTA SYSTEM ON SELECTED AREAS AND IRRIGATED FARMING

	SASKATCHEWAN REGIONS						
	Southwest		Northeast		Irrigated Farm		
	A Typical Cropping Pattern	Best Quota Possible	A Typical Cropping Pattern	Best Quota Possible	A Typical Cropping Pattern	Best Quota Possible	A Good Husbandry Rotation
Farm Improved Acres	1250	1250	1250	1250	1250	1250	1250
A. Total Wheat, Barley, Oats, Rye, Flax, Rape	500	750	750	1000	600	1000	300
Miscellaneous Crops	0	0	100	0	400	0	325
Summerfallow	500	250	150	0	0	0	0
B. Total Miscellaneous Crop & Summerfallow	500	250	250	0	400	0	325
C. Perennial Fodder	250	250	250	250	250	250	625
D. 1/3 of A.	167	250	250	333	200	333	100
E. Base Quota = A+B+(Smaller C or D)	1167	1250	1250	1250	1200	1250	725
Bonus Eligible 1/3 of A less B	167-500	250-250	250-250	333-0	200-400	333-0	100-200
Bonus =	0	0	0	333	0	333	0
Final Quota	1167	1250	1250	1583	1200	1583	725

The "best quota possible" option, shown in Table 8.1, for the Southwest Region assumes one-quarter of the annual "cropped" acres should be in summerfallow to reduce crop failure from drought. With this restriction, supported by many crop and soil specialists, bonus acres are not possible. More humid areas, such as the northeast of Saskatchewan, can and do adjust seeded acres to gain bonus quota. In the more humid areas, the bonus acreage feature does tend to counter the incentive in the quota system to summerfallow, provided the producer does not grow crops classed as miscellaneous.

Opportunities

The land degradation situation is amenable to improvement. As previously indicated, some farmers have begun reducing tillage where possible, and introducing more sophisticated cropping and rotation systems into their operations.

The FarmLab and Crop Development Centre programs are exploring and demonstrating the latest technologies and innovations. There is a great need for more directed and comprehensive research in this area. An immediate need is to do an economic analysis of both the traditional and new, more innovative systems.

The Canadian Wheat Board should be encouraged to adopt an improved quota system. For the last three or four years the CWB has been made aware of the problem caused by the quota system, by the Advisory Committee on Rural Economics for Saskatchewan.

The Task Force concluded that the appropriate agencies of both the federal and provincial government should address the problems of soil degradation with positive and co-ordinated actions in order to ensure the long-term preservation of the agricultural land base. Some initial steps have been taken. The federal government, in 1983, announced its interest in reversing the trends in land degradation, and the Prairie Farm Rehabilitation Administration has been reorganized to take on the task. As well, Environment Canada has established a land directorate office in Regina.

Over the longer term, a Soil Preservation Program should be developed to remove lands subject to salinity and wind or water erosion from the production of rotational crops requiring annual cultivation. One approach would be for landowners to sign long-term contracts or agreements with the Government agreeing to maintain affected land in forage production for the duration of the contract/agreement. In return, the federal government could provide annual acreage payments. The landowner would be able to utilize the forage production to best advantage. Municipalities could forego property tax on these acreages in return for a partial reimbursement from the provincial government. This proposed program recognizes the following principles:

- The responsibility for reclaiming degraded soils should be shared by all Canadians because federal and CWB policies have been partially responsible for the problem, and Canada has been a major benefactor of the "soil mining" process. Also, society as a whole has a long-term interest in soil conservation.

- All three levels of government should be involved in any long-term program to ensure success.

- Landowners cannot carry the burden of reclamation by themselves, given current high costs of production and low net returns for commodities.

Because the extent of land degradation is so severe in some areas, especially in the brown and dark brown soil zones, many farmers have already been forced to seed forage crops as part of their rotations. In some cases it has been considered necessary to seed entire quarter sections to crops like alfalfa. This has had a favourable effect on the soil and has provided an important fodder base for cattle production in these areas. Since such a program results in a significant reduction in cash crop production and net returns, the producers need assistance, especially for purchasing forage seed and seeding costs, as was done in the LIFT program in 1970-71.

LAND TRANSFER

High land costs, large units and absentee ownership all tend to increase the amount of land rented by farmers. Figure 8.1 shows that the average land and building value per acre doubled from 1971 to 1976, and more than doubled from 1976 to 1984. Data on the size of ownership units is not readily available, but most rural residents are aware that the farm units in their community are the largest they have ever been. Figure 8.1 also shows the growth of farm size in Saskatchewan from 1911 to 1984.

Absentee landlords in Saskatchewan include retired farmers, individuals employed in other occupations, or agricultural corporations where the principals are directly involved in agriculture. By legislation, ownership of farmland by non-agricultural corporations and "nonresidents" of the province is restricted. Saskatchewan's aging population, farmer retirements, and opportunity in land investment as an inflationary hedge have all encouraged substantial increases in absentee ownership in the last two or three decades.

The Saskatchewan Farm Ownership Act restricts the ownership of farmland by non-agricultural corporations and nonresidents of the province. Section 11(1) of the Act provides that, subject to sections 12 and 13, no non-agricultural corporation shall have or acquire an aggregate land holding in excess of 10 acres. The Task Force concluded that this provision inhibited some types of rural development and therefore should be changed, especially for resident-owned corporations. The main problems caused by the 10-acre limit include the following:

- economic development opportunities that require the corporate approach for obtaining adequate capital and limiting liability are discouraged or prevented,

- corporate capital is restricted in assisting in farmland transfers,
- a 10-acre land base is insufficient for many types of development (such as machinery dealerships, agricultural chemical companies and livestock/abattoir enterprises),
- several hundred (about 325) non-agricultural corporations have up to 160 acres of land and will be required (Section 12) to dispose of land in excess of 10 acres by January 1, 1994 unless the Act is changed or exemptions are granted. This is a major concern to corporations which require the land they have to continue their activities, and
- the provision is viewed as too restrictive and excessively regulated by residents of Saskatchewan who need more than 10 acres for some types of development activities.

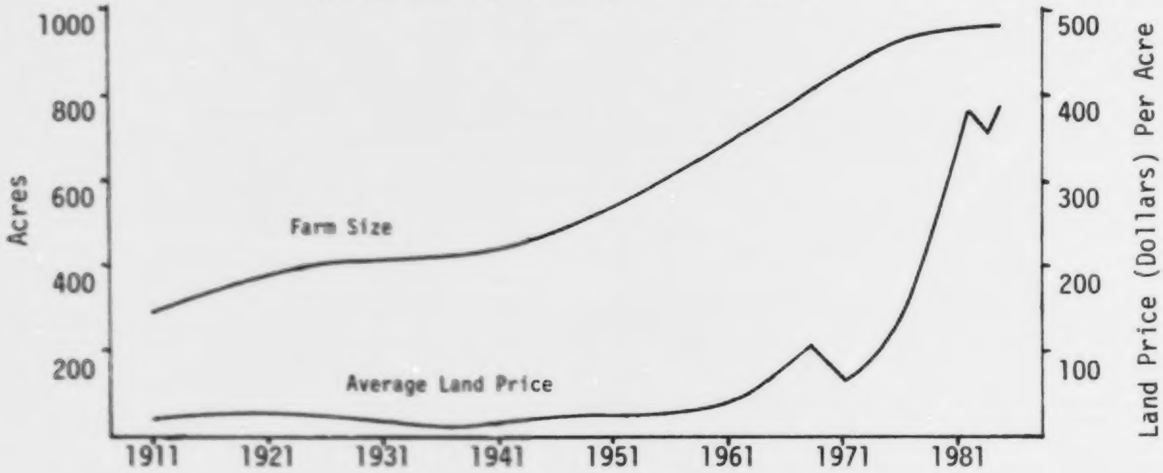
Considering the many types of intensive development opportunities which would relate positively to rural development, the Task Force concluded that a new section should be added to The Saskatchewan Farm Ownership Act to allow non-agricultural corporations which are wholly owned by Saskatchewan residents to acquire an aggregate land holding not exceeding 160 acres or one quarter section, whichever is greater. This should not adversely affect the basic intent of the Act and would overcome the problems outlined above. More important for rural development would be the base this would provide for more economic development and activity. An incidental benefit for the Farm Ownership Board would be a reduced workload as a result of the decrease in exemption requests from potential developers who need more than 10 acres for their projects.

The percentage of operators that rent a portion of the land they farm has increased steadily in all three prairie provinces, as shown in Table 8.2. This trend indicates that renting is being used as a means of achieving increased farm size without the financial burden of purchasing all the land being farmed.

Table 8.2 provides a comparison of the percentages of land owned and rented by farm operators in the prairie provinces from 1901 to 1981. The pattern is quite similar in all three provinces. The percentage of land owned in Saskatchewan has been about 66 percent for the last three decades. Table 8.3 shows that about 40 percent of Saskatchewan farm operators are part owners-part renters.

Figure 8.1

AVERAGE FARMLAND PRICE PER ACRE
AND AVERAGE FARM SIZE, 1911 TO 1984



Source: Statistics Canada - Average Farm Size.
Saskatchewan Agriculture - Average Land Price.
Estimates - on farm size beyond 1981 and on land price for 1984.

Table 8.2

COMPARISON OF FARMLAND OWNED AND RENTED BY FARM OPERATOR,
BY PRAIRIE PROVINCE, 1901 - 1981

	Percent Owned by Operator			**Percent Rented by Operator**		
Year	**Manitoba**	**Sask.**	**Alberta**	**Manitoba**	**Sask.**	**Alberta**
			- Percent Distribution -			
1901	91.3	**96.0**	89.3	8.7	**4.0**	10.7
1911	84.5	**91.0**	88.2	15.5	**9.0**	11.8
1921	82.1	**80.5**	81.0	17.9	**19.5**	19.0
1931	72.1	**70.5**	69.1	27.9	**29.5**	30.9
1941	68.7	**59.4**	61.7	31.3	**40.6**	38.3
1951	77.8	**65.5**	65.9	22.2	**34.5**	34.1
1956	77.1	**65.9**	64.6	22.9	**34.1**	35.4
1961	75.5	**67.9**	67.8	24.5	**32.1**	32.2
1971	74.0	**70.9**	64.1	26.0	**29.1**	35.9
1976	71.3	**69.0**	64.1	28.7	**31.0**	35.9
1981	66.9	**67.6**	64.9	33.1	**32.4**	35.1

Source: Statistics Canada.

Table 8.3

COMPARISONS OF OPERATORS BY TENURE CLASS, BY PRAIRIE PROVINCE
1921 - 1981

	All Owner Operator			All Rented by Operator			Part Owned/Part Rented		
Year	**Man.**	**Sask.**	**Alta.**	**Man.**	**Sask.**	**Alta.**	**Man.**	**Sask.**	**Alta.**
	Percent Distribution of Operators (farms)								
1921	82.0	**77.6**	80.4	11.4	**10.8**	9.7	6.6	**11.6**	9.9
1931	71.1	**66.4**	72.9	18.2	**15.4**	12.2	11.7	**18.2**	14.9
1941	66.7	**53.0**	63.1	18.9	**24.6**	17.1	14.4	**22.4**	19.8
1951	71.7	**55.1**	63.4	9.7	**14.7**	11.6	18.6	**30.2**	25.0
1956	69.8	**53.1**	61.7	8.8	**13.0**	10.7	21.4	**33.9**	27.6
1961	65.3	**51.9**	59.7	8.0	**10.1**	9.2	26.7	**38.0**	31.1
1966	66.3	**55.9**	62.8	5.9	**7.2**	6.6	27.8	**36.9**	30.6
1971	61.8	**53.9**	59.3	6.3	**7.0**	6.7	32.0	**39.1**	34.0
1976	57.6	**52.6**	58.6	6.6	**8.0**	6.1	35.8	**39.4**	35.3
1981	54.6	**50.7**	58.3	7.7	**8.9**	6.3	37.7	**40.4**	35.4

Source: Statistics Canada.

Problems

Increases in land values have been significantly higher than the rate of inflation in most years since 1971. Land purchases have in some cases been used as both a hedge against inflation and as an investment. Many such purchases have led to increases in farm size. The topic of farm size is dealt with elsewhere in this report, but it is significant to note here that the technological pressures to increase farm size have resulted in farms with a large capital investment and a resulting problem for both the parents who may be too young to retire, and young adults who want to farm.

The increased number of operators that rent a portion of the land they farm should not be viewed as a problem, but as a means of both entry and exit. The average farming lifetime is estimated at 30 to 35 years and is declining. Given the emphasis on ownership by the operator, this means the farm must be repurchased every 30 to 35 years by the succeeding generation.

Prior to the capital gains tax, farmland was often transferred from generation to generation, either within or outside the family by means of an agreement for sale. Because an agreement for sale fixes the selling price and establishes the sale date, capital gains tax becomes effective the year of sale and must be financed.

Saskatchewan and Canada have attempted various programs to alleviate the problems of land transfer. The Farm Credit Program, 1959 and the Small Farm Development Program, 1972-79 of the federal government; the Saskatchewan Land Bank Program, 1971-82; Crown Land Rental and Crown Land Purchase Programs of Saskatchewan Agriculture, 1930; and the Saskatchewan Farm Purchase Program, 1982, are all attempts to deal with the problems of land transfer. The predominant benefit provided has been subsidized credit. A major problem is that it frequently takes a new farmer several years of operation to achieve a satisfactory rate of return on investment. When interest rates are high the problem can be extreme.

Opportunities

One method to enhance farm entry and operation is for government land "credit" programs to accommodate off-farm work and part-time farming. This approach is developed elsewhere in this report, but it is significant to note that in 1979, the Science Council of Canada argued that the amount of off-farm work is a symptom of the failure of government programs and an indication of the hidden costs of Canada's cheap food policy. The price of land in most areas is only partially established by its production capability.

A registered farm ownership savings plan similar to the Registered Home Ownership and Retirement Savings Plans would allow young people who desire to farm to put aside tax deductible money. The home ownership plan has limits of $1,000 per year, to a maximum of $10,000 set aside free of income tax, for the first home purchase. The higher cost of beginning a farm warrants increased limits of at least double and perhaps five times what is permitted under the current home ownership programs.

PROVINCIAL LAND USE POLICY GUIDELINES

During its consultations with municipalities and municipal organizations, the Task Force heard requests for the Province to establish provincial land use policy guidelines. The purpose of these guidelines would be to more clearly delineate the nature and extent of the Province's interest in land use at the local level. A number of other provinces have developed such guidelines, with varying degrees of success (see the appendices at the end of this chapter).

In the mid to late 1970s, the Saskatchewan Department of Environment held a number of workshops with various provincial organizations to develop a provincial land use policy. Following that, a series of public meetings were held to gauge public reaction to the broad land use guidelines that were developed. The guidelines received only limited public support and were considered by many as excessive in their encouragement of central control of the provincial land base.

The federal government established its own policies on land use in 1980. These policies are designed to guide the internal activities of federal agencies and Crown corporations regarding public and private lands. The policies are co-ordinated by Environment Canada's interdepartmental committee on land.

Current Situation

The Planning and Development Act, 1983-84 makes provision for - but does not require - the provincial Cabinet to adopt provincial land use policies. The Act states that such policies, if enacted, are to be considered in the preparation and review of development plans, basic planning statements and zoning bylaws throughout Saskatchewan.

It is important to note that provincial land use policies would not take the form of a provincial plan or zoning bylaw. Rather, provincial land use policies, as envisioned in the Act, would be a series of statements which would explain the overall provincial interest in various categories of land use. For example, the provincial interest in good agricultural land might be expressed in terms of maintaining land in agricultural production wherever possible and practical.

Another major consideration is the desire to have local control over development activities. If provincial land use guidelines were adopted, authority for development approvals could be transferred from the Province to local authorities. This would, in the opinion of the Task Force, provide substantial impetus to the thrust of development activities in rural Saskatchewan.

Relationship to Rural Development

Provincial land use policy guidelines would assist municipalities in drafting their plans and zoning bylaws by giving them a clear indication of the factors that the Province considers when approving local plans. The province as a whole would benefit because it would assure that major concerns which spill over municipal boundaries - such as retention of good agricultural land - would be adequately provided for in local land use plans and bylaws. The presence of provincial land use guidelines would also help to minimize land use conflicts. The end result should be a more efficient and better informed development process at the local level, a result which would assist in enhancing positive economic development in rural Saskatchewan.

The Task Force realizes that, for several reasons, the development of provincial land use guidelines would be a complex process, since:

- Provincial interests may, in some cases, conflict with local interests.

- There may be conflict between various interest groups who view land use matters from different perspectives (such as environment, wildlife and agriculture).
- The guidelines should incorporate and maintain a delicate balance between interest group issues, individual property rights and the overall provincial perspective.

The Task Force concluded that, in the process of developing provincial land use guidelines, the following would be important components of the process:

- There should be a Cabinet commitment to the undertaking and leadership responsibility should be assigned to a specified minister, logically the Minister of Rural Development.
- Interagency co-ordination should be under the leadership of the minister assigned to the overall undertaking, and should include full liaison with rural and small urban municipalities.
- The approach should be comprehensive to avoid policy gaps and to take into account all interrelationships.
- Should be designed for application at both the provincial and local government levels.
- Local government input should be included at all levels of the development process.
- Budgetary support should be provided for both provincial policy development and municipal planning.

CROWN LAND MANAGEMENT

Saskatchewan's land base is comprised of about 651,900 square kilometres (160,800,000 acres). Table 8.4 indicates the tenure of all lands within provincial boundaries, as of 1975 (the most recent data available for all of the categories indicated). Table 8.5 indicates the tenure of agricultural lands in the province.

At present there are more than 250 community pastures utilizing Crown property. These are operated by the PFRA, the Province, and local grazing associations.

Of the 8.2 million acres of agricultural land held by the Crown, it is estimated that 25 percent has the potential for much greater productivity through improved husbandry. It has also been suggested that as much as 5.0 million acres of Crown land within the provincial forest could be utilized for agricultural purposes if improved.

Table 8.4

SASKATCHEWAN LAND TENURE, 1975

Type	**Area (Sq. km)**	**Millions of Acres**	**Percent**
1. Provincial Forests	349,009	86.1	53.6
2. Provincial Parks	4,810	1.2	0.7
3. Other Provincial Lands	35,716	8.8	5.5
Total Provincial Crown Land	389,535	96.1	59.8
4. National Parks	3,875	1.0	0.6
5. Other Federal Lands	5,451	1.3	0.8
6. Indian Reserves	5,687	1.4	0.9
Total Public Lands	404,548	99.8	62.1
7. Privately Owned Lands	247,352	61.0	37.9
Provincial Land Base	651,900	160.8	100.0

Source: Statistics Canada.

The Province holds title to its properties for public purposes as may be determined from various pieces of legislation providing for ownership.

In the agricultural area of the province, Crown ownership is considered necessary to:

- ensure protection of ecologically fragile soils,
- ensure protection of natural flora and fauna,
- ensure protection of public investment (such as utilities, roads, and schools),
- ensure public access to recreational properties,
- ensure protection of properties critical to water resource management (such as flood areas and Conservation and Development projects), and
- ensure protection of historical property.

Table 8.5

AGRICULTURAL LAND USE TYPES, 1975

Type	Area in Acres	Percentage of the Total
Patented Land	57,319,924	87.51
Crown Land		
PFRA Community Pastures (Title With Canada)	1,237,120	1.89
PFRA Community Pastures on Indian Reserves	53,350	0.08
Provincial Crown Leased to PFRA	509,340	0.78
Provincial Crown Leased to Individual Farmers and Ranchers	4,266,433	6.51
Provincial Crown Vacant	690,252	1.05
Provincial Community Pastures	777,231	1.19
Association Community Pastures	646,350	0.99
Total Crown Land	8,180,076	12.49
Total	65,500,000	100.00

Source: Saskatchewan Environment.

Problems

1. Absence of Provincial Land Use Guidelines

The Task Force concluded that the introduction of provincial land use guidelines would assist development activities in rural Saskatchewan. Land use guidelines, locally administered, should also prove beneficial to the future development of Crown lands.

The absence of clearly defined goals and objectives for land utilization has greatly impeded development activity on Crown-owned properties - both agricultural and forestry.

To date, the only consistently effective method to control the use of specific land parcels in the public interest has been outright ownership by the Crown. For example, ecologically fragile land would not currently be offered for sale because private ownership would convey the automatic perceived right to utilize the property as the purchaser desired. This could result in ecological damage to an entire region's watershed, soil structure or wildlife habitat.

Land use guidelines, adopted and administered at the local level, would permit alternate private uses only if they did not violate the original concern, in this case ecological. They would not restrict ownership to the Crown nor necessarily perpetuate a single use of the property. For example, a privately owned tourism development could occur in an ecologically fragile zone, if the development did not conflict with the original aims of the Province when the property was obtained.

While alternate uses, such as grazing or forage production, are now often allowed and promoted, more intensive development can not be expected on a tenancy basis. However, it is not considered feasible for the Crown to relinquish its title to much of the land involved unless land use guidelines exist.

The purpose of land use guidelines is to ensure that public interests in land are protected, enhanced and developed. Through the adoption of clearly defined provincial guidelines, the Province could adequately fulfill its role as custodian of the public interest.

Current policy formulation for administration of Crown lands is generated by those Crown agencies and departments directly concerned with the specific purposes for which the land was dedicated to the Crown. The restricted goals of these individual government units encourage the retention of these lands in perpetuity solely for the purpose for which they were acquired. Instead of an ongoing provincial evaluation of the economic, social and environmental benefits of alternate uses, there appears to be only the desire to manage existing utilizations.

The Province could exercise its authority as the steward of land use more effectively by first establishing its desired goals and long-term interests more formally.

2. Infringement on Private Property Rights by the Crown

The absence of land use policies and prevailing legislation have enabled the Crown, through its agencies and corporations, to force its will upon private property holders, sometimes without adequate regard for their individual rights. While this may have been done in the name of the public good, it often reflects the pressure from interest groups outside the local community and may have limited support from local landowners.

For example, the Department of Parks and Renewable Resources, reacting to pressures from wildlife protection groups, may designate land as critical wildlife habitat. When wildlife flourishes on the designated parcel, adjacent landowners will automatically be forced to contribute to the maintenance of the wildlife by:

- providing feed to the wildlife from their normal crops and grazing lands,
- increasing property taxes to compensate for revenue lost to the local municipality by placing the subject land in the Crown,
- increasing property taxes to support maintenance of roads to the habitat used by groups such as hunters, fishermen, and sportsmen, and
- increasing use of chemicals and/or cultivation to control weed, grass, tree or insect infestations generated from "natural" habitats.

Other examples of Crown infringement on local rights include expropriation for public roads, drainage projects, utilities, and for the construction of hydroelectric or irrigation reservoirs.

Provincial guidelines, locally administered, would allow all parties to a land use decision to be involved in the decision of "best use." They should ensure that the Crown would respect local conditions and local desires prior to making land use decisions. The conflicts that now exist between potentially divergent interest groups would be resolved before, and not after, a use was determined.

3. Reduction of Local Autonomy

Crown ownership of property within a municipality has the effect of reducing local control. This results from the lack of control over resource utilization, and the loss of taxation revenue to the municipality.

Crown holdings have traditionally been outside the control of local governments. The Province has been virtually free to utilize these properties as it sees fit. All local regulations which can apply to Crown property must receive provincial approval, and are usually subject to either exemption to the Crown or a regulation allowing the Province to ignore the local bylaws if it so desires. This provides little, if any, local control or decision making in the process of utilizing Crown property.

Crown holdings are exempt from taxation. Although several ad hoc programs for payments of grants-in-lieu of taxes are in place, they lack consistency and leave much to be desired in contributing to the financial stability and therefore the autonomy of the municipalities.

Opportunities For Improvement

In order to ensure that future utilization of certain properties will not conflict with the long-term goals of the Province, large areas of land have been dedicated to the Crown. The implementation of provincial land use guidelines would eliminate the need for Crown ownership of a large portion of its holdings. Once land use has been determined, the main reason for public ownership has been eliminated.

Many properties now held in the Crown have a great potential for development. Tourism facilities, agricultural activity, recreation and wildlife enhancement could all take place on lands now held by the Crown. The potential of the Cumberland House Saskatchewan River Delta area is a prime example of untapped resources awaiting Crown disposition to enable development. If this area was made available for development as recommended in Chapter IV, it would likely be developed rapidly as occurred when the pioneer farmers who came to Saskatchewan were provided with land. As indicated in Table 8.1, almost all of the land developed by our pioneers was on an ownership basis.

The Province has a large investment in Crown properties on behalf of its taxpayers. Of concern to the public should be the benefits generated by these investments and the impact of these properties on the well-being of the province. It is reasonable to ask whether there are more effective ways of encouraging economic development or of using the vast resources involved.

It is recognized that this is a complicated and highly sensitive issue. Solutions will require consultation and research to ensure public interests remain intact. The Task Force concluded that the issues of land and resource utilization are interwoven with the issue of Crown ownership. Land use guidelines would provide the basis to allow more of the existing Crown property to be privatized if alternate acceptable and non-conflicting uses are proposed. In addition, such guidelines should remove a major source of uncertainty in rural planning, and should reduce the amount of red tape and hassle now encountered too frequently by potential developers of economic activities.

RECOMMENDATIONS

Regarding the four main land-related issues discussed in this chapter, the Task Force recommends the following:

1. The Province should take the necessary steps to formulate and adopt provincial land use guidelines as provided for in The Planning and Development Act. In support of this recommendation, the Task Force suggests that:

    - Considerable public consultation has already taken place and it should be possible for the Province to draft a set of land use guidelines. Once prepared, a series of public forums should be considered with groups such as SARM, SUMA and the various interested sectors of the economy to ensure the proposed guidelines are in accord with the needs and wishes of the majority of property owners and potential users.

- The Department of Rural Development should take a leadership role in co-ordinating and assembling interdepartmental policies from which overall guidelines will evolve. The majority of lands affected by this policy will fall within the boundaries of the 299 rural municipalities, making it vital to ensure that rural interests are fully considered.
- A Cabinet committee chaired by the Minister of Rural Development should be established to oversee the development and implementation of provincial land use guidelines. It is vital to the success of this proposal that it receive a firm and ongoing commitment at the Cabinet level. Development of such guidelines will be a complex task, and anything less than full support from all departments, Crown corporations and agencies will almost certainly jeopardize the outcome.
- The guidelines developed should clearly outline the public interests which the Crown must uphold on behalf of its corporations, departments and agencies, and which could be protected by adequate land use guidelines.

2. Once clearly defined land use guidelines have been adopted, the Province should re-evaluate the necessity for retaining the vast acreages of Crown land and related property now held.

3. The Province should proceed immediately to alienate as much agricultural and forest land as possible to encourage increased productivity and development by entrepreneurs.

4. The Saskatchewan Farm Ownership Act should be amended by adding a new section to allow non-agricultural corporations which are wholly owned by Saskatchewan residents to acquire aggregate land holdings not exceeding 160 acres or one quarter section, whichever is greater. This would remove an important impediment to some types of economic development needed in rural Saskatchewan.

5. The Government of Saskatchewan should urge the CWB to restructure the quota system to discourage summerfallow practices in Saskatchewan and encourage alternate uses for soils subject to erosion and degradation.

6. The Government of Saskatchewan should work with the Government of Canada to develop a soil conservation program to return marginally productive soils to forage crops.

7. The Government of Saskatchewan, in its agricultural policies and programs and in its relationships with lending agencies, should recognize that part-time farming and off-farm income are positive and not negative economic factors in the process of establishing new farm units.

8. Saskatchewan should encourage the Taxation Division of Revenue Canada to develop a registered farm ownership plan to encourage investment in farm property.

Appendix 1

PROVINCIAL LAND USE POLICIES
COMPARATIVE APPROACHES, 1984

PROVINCE	TYPE	CO-ORDINATING AGENCY	IMPLEMENTATION MECHANISM	DEGREE OF SUCCESS	COMMENTS
Newfoundland	Regional	Municipal Affairs	Crown interests are defined in regional plans. Municipal plans must be consistent with the provincial regional plans.	High	Development planning process in Newfoundland is highly centralized; therefore, protection of provincial interests in land use is not difficult. Few problems.
	Issue	Executive Council	Agricultural land preservation, environmental, forestry and mining policies are applied through regulations.	High	Agricultural land is protected by legislation. Few problems.
Prince Edward Island	Comprehensive Issue	Provincial Land Use Committee	Royal Commission approach initially; land use committee now.	Regressive	Many draft policies (340); too controversial; currently municipal planning and development control only. Weak Cabinet commitment; public opposition.
Nova Scotia	Issue	Executive Council	New Planning Act provides for land use policy statements to be recognized in municipal development plans.	High	Interagency Land Use Policy Committee now reviewing existing ministry policies for co-ordination and follow-up. Few problems.

PROVINCE	TYPE	CO-ORDINATING AGENCY	IMPLEMENTATION MECHANISM	DEGREE OF SUCCESS	COMMENTS
New Brunswick	Issue	Environment	Commenced with economic development review, but process stalled. No land use policies developed as yet.	Initially, High Currently, Low	Mainly intended for Crown land management. Cabinet commitment weak.
Quebec	Regional	Municipal Affairs	Municipal development plans must be consistent with provincial regional plans.	Moderate	Some disappointment as provincial regional plans are below municipal expectations. Expectations not fully achieved.
	Issue	Agriculture	Sale of agricultural land and its conversion to other uses is restricted.	Moderate	Considered somewhat excessive where marginal agricultural land is involved. Public opposition apparent.
Ontario	Issue	Municipal Affairs	Municipal development plans must recognize provincial policies.	Moderate	Agriculture and aggregate resource lands only policy areas so far. Progress is slow in other areas. Inter-agency conflict. Excessive public input process.
Manitoba	Issue	Municipal Affairs	Municipal development plans must consider policies, but may be at variance if approved.	High	Being reviewed after five years of being in effect. Most comprehensive and successful. Few problems.

PROVINCE	TYPE	CO-ORDINATING AGENCY	IMPLEMENTATION MECHANISM	DEGREE OF SUCCESS	COMMENTS
Saskatchewan	Issue	Rural Development and Urban Affairs proposed reference in new Planning Act.	Environment developed guidelines in '70s, but without implementation mechanism. New Planning Act requires provincial policy consideration by municipalities, but no policies have been formally adopted as yet. Development plan guidelines now being prepared by Rural Development and Urban Affairs for use by municipalities.	Low	Various agencies have regulations affecting land use, but co-ordination, consistency and comprehensiveness are lacking. Provincial commitment to preparation and implementation is currently under review.
Alberta	Issue	Municipal Affairs	Municipal development plan preparation guidelines serve to advise municipalities of considerations in preparing their development plans.	Moderate	Statements of provincial interests or policies are lacking or unclear. Appears to be a lack of interagency co-ordination and provincial government policy commitment.
British Columbia	Regional	Municipal Affairs	Municipal development plans and provincial policies.	Low	Difficult to get government agencies to make policy commitments.
	Issue	Executive Council	B.C. Land Commission reviews agricultural land conversion proposals.	Moderate	Has operated in a fairly flexible manner. Some inconsistencies.
	Issue	Municipal Affairs	Planning guidelines have been issued as basis for municipal development plan preparation.	Moderate	B.C. has been cutting back on expenditures for regional and municipal development planning.

Source: Community Planning Branch, Saskatchewan Rural Development.

Appendix 2

OPTIONS RE: PROVINCIAL LAND USE POLICIES FOR SASKATCHEWAN

OPTION	IMPLICATIONS
1. Status Quo - Various provincial regulations and guidelines affecting land use and development are in existence, but are frequently overlapping and lack co-ordination. - The results of Environment's land use policy process (late 1970s) has no legal status and is inadequate as a framework for municipal planning. - The new Planning Act provides for land use policies for consideration in municipal planning, but the preparation process has not commenced.	a) Lack of interagency co-ordination in land use and development policy application. b) Lack of framework for municipal development planning. c) Unclear and inconsistent statements of provincial interests and priorities in land use and development policy. d) Continued uncertainty for provincial staff in assisting municipalities in development policy formulation and management.
2. Regional Provincial Plans - Would outline provincial policies and projects on a regional basis.	a) Would provide provincial context for municipal planning. b) Might not meet local expectations as comparisons are made between regions. c) Could involve premature commitments to provincial projects and expenditures. d) Could be difficult to achieve interagency consensus.
3. Issue/Sector Provincial Policies - Policy statements by issue area would be researched and prepared for consideration in municipal development planning. - Policies would be prepared through a process of interagency co-ordination. - Some policies would serve as development guidelines, and others as regulations. - Application would be through municipal development plans and provincial guidelines and regulations.	a) Improved interagency co-ordination of provincial policies and regulations affecting land use. b) Enhanced local autonomy as provincial interests are specified, requiring less "hands on" application. c) Municipal and public requests for provincial land use policies would be fulfilled. d) Commitment by Province that Crown would comply with policies in its development activity. e) Improved climate for development and greater certainty among developers as policies are available for consideration as proposals are being planned. f) Municipalities would have basis for own development planning, as provided for by the new Planning Act.

CHAPTER IX

WATER

Water is a fundamental requirement of any society. Its importance in rural Saskatchewan encompasses both quantity and quality aspects for a broad range of uses including households, agriculture, irrigation, municipal and industrial, hydro and thermal power, tourism and recreation, fish and wildlife, pollution control, as well as drainage and flood control.

The amount of water in Saskatchewan is extremely variable in time and location, and the quality is also very variable. The annual mean flow of rivers indicates the long-term supply of water, but it does not show the wide fluctuations from year to year and the resultant shortages or floods.

In southern Saskatchewan, light and unreliable rainfall combines with high summer temperatures to produce a semiarid environment. In the central and northern parts of the province, heavier and more reliable rainfall, in combination with lower evaporation, results in a sub-humid environment.

Surface runoff to rivers and lakes comes from that part of rainfall or snowmelt that is not absorbed by the soil. Groundwater comes from that part of precipitation which moves downward through the soil without being intercepted by evaporation at the surface or by evapotranspiration of plants. Consequently, replenishment of surface and groundwater resources in this climate is erratic, and the supply of water in many parts of Saskatchewan is small and unreliable.

Surface Water Resources

Table 9.1 and Map 4 provide an overview of Saskatchewan surface water sources. For the principal river basins, Table 9.1 shows the annual mean flow, the annual median flow, the average flow for the driest two consecutive years during the period of record (about 60 years), and for some basins, the present allocations.

The table shows that in southern Saskatchewan, the present allocations of water cannot be supplied in dry years, except for rivers fully regulated by reservoirs, and the Assiniboine, Battle and North and South Saskatchewan Rivers.

Table 9.1

FLOWS AND ALLOCATIONS FOR PRINCIPAL RIVER BASINS IN SOUTHERN SASKATCHEWAN

	Total Annual Flow**				
Basin or Stream	**Average Year**	**Median Year**	**Two Consecutive Dry Years**	**Total Allocation For Present Development**	**Remarks**
Qu'Appelle @ Welby	196	120	16	54	Less 50% to Manitoba
Souris	106 (N)	72 (N)	5 (N)	38	Less 50% to USA
Old Wives Lake	90 (N)	72 (N)	31	51	Sum of Wood River and Notukeu Creek
Cypress North					
Bridge, Skull & Piapot Creeks	Fully allocated. Wildlife projects have been built to salvage waterfowl when terminal lakes go dry.				
Maple Creek	Regulated flow 16; present development requires 16.				
Swift Current	Regulated flow 33; present development requires 25 plus 23 to complete development begun.				
Cypress South					
Lodge	28 (N)	22 (N)	7 (N)		Less 50% to USA
Battle Creek	30 (N)	25 (N)	11 (N)	12	Less 50% to USA
Frenchman	94 (N)	79 (N)	31	35	Less 50% to USA
East Poplar	Regulated flow 5.4; two units at Coronach station 5.7.				
Assiniboine	295	168	44	14	Less 50% to Manitoba
Battle River (Alta.-Sask. Boundary)	146	125	30		Sask. share only
South Saskatchewan River at Alta.-Sask. Boundary	4753	4506	2877		Alberta share deducted but not Manitoba share
North Saskatchewan River at Alta.-Sask. Boundary	4516	4319	3074		

NOTE: dam^3 (cubic decametre) = 1.23 acre-feet. All figures are in $\text{dam}^3 \times 1{,}000$.
** The average is higher than the median because of the input of a few large floods.

Source: E. F. Durrant, Consulting Engineer.

Map 4 on water availability in Saskatchewan illustrates clearly the areas where a limited water supply is already a constraint. In the area coloured red, all the available flow has been fully allocated. Only applications for farm domestic supply or for small towns would be considered by the Saskatchewan Water Corporation. In the area coloured orange, very little water is left, and all proposed uses greater than 100 acre feet (123 dam^3) per year require a detailed study of water supply. In the area coloured yellow, the landscape is dotted with small depressions and there are no large streams. Consequently, water supply projects are limited to the trapping and storing of runoff. In the uncoloured area, new applications for water use are considered, but the available supplies are small. Any point in the area coloured green is within 15 km of a major supply of water - a source capable of providing 4,000 acre feet or more (4,936 dam^3) per year. A supply of this magnitude would be needed to support an oil upgrader, or a large thermal-electric power plant.

Groundwater Resources

Many of the preglacial formations in southern Saskatchewan contain water but, for the most part, the water is saline and is unusable for some purposes. However, the inter-glacial and post-glacial deposits often contain fresh water. These old buried valleys, beaches and outwash plains are the main sources of Saskatchewan's usable groundwater. Over the past 30 years, the general outline of these areas has been mapped and some testing has been done to permit approximate estimates of yield.

Map 5 shows the location of major aquifers in Saskatchewan and Table 9.2 summarizes the potential yield and water quality from these aquifers.

The stippled areas on Map 4 outline the groundwater sources that could supply more than 4,000 acre feet (4,936 dam^3) of water per year with less than 2,000 ppm of total dissolved solids (TDS).*

---

* Saskatchewan's drinking water objectives specify a maximum of 1,500 parts per million (ppm) of total dissolved solids (TDS). The United Nations objectives specify a maximum of 500 ppm.

Table 9.2

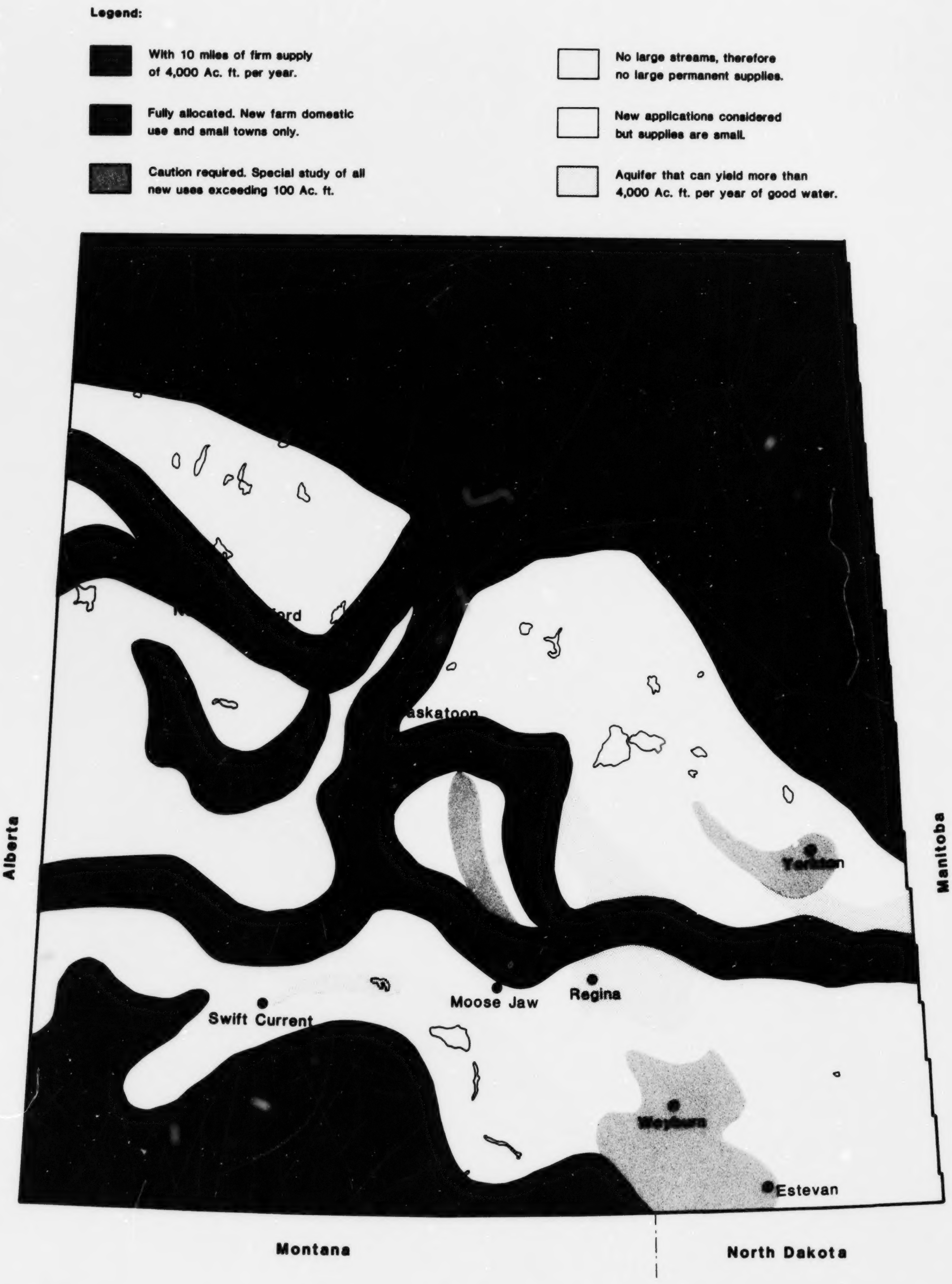
YIELDS AND QUALITY OF SOUTHERN SASKATCHEWAN AQUIFERS

	Area in Miles^2	**Net Yield in Ac.Ft./Yr**	**Estimated 1980 Production Ac.Ft./Yr**	**Estimated 1980 Available**	**Salinity Range in ppm of TDS**
High Yield Aquifers					
Major Bedrock Aquifers					
. Montreal Lake - Dore Lake - Peter Pond Lake	19,000	1 x 10^6	NA	NA	2-4000
. Nipawin - Hudson Bay - Cumberland	15,000	1 x 10^6	NA	NA	2-4000
Major Drift Aquifers					
. Shellbrook System	2,800	50,000	200	50,000	3-5000
. Nokomis System					
- Hatfield Valley					
Domremy Segment	3,500	50,000	2,000	45,000	3000
Lebret Segment	700	5,000	300	4,000	1800
- Pathlow	200	5,000	300	4,000	1700
- Wynyard	1,200	26,000	NA	26,000	2300
- Strasbourg	460	1,000	NA	1,000	2300
. Yorkton System					
- Yorkton-Bredenbury	1,000	12,000	1,700	10,000	1000
- Welby	220	3,000	1,000	2,000	1100
- Langenburg	440	6,000	1,000	5,000	?
- Melville	600	3,000	NA	3,000	?
. Regina System	1,400	25,000	10,000	10,000	900-1200
. Estevan System					
- Estevan Valley	190	11,000	NA	11,000	1700-2500
- Weyburn Valley	70	1,000	100	900	2500
. Tyner System					
- Tyner Valley	850	13,000	NA	13,000	22-2800
- Dalmeny	350	6,000	NA	6,000	800-2000
- Tessier	600	7,000	NA	7,000	1500
- Rosetown	550	2,000	NA	2,000	1400
- Judith River Fm.	1,580	10,000	NA	10,000	3000
. Battleford System					
- Battleford Valley					
Baldwinton Segment	300	3,000	NA	3,000	18-2000
Lilac Segment	500	6,000	NA	6,000	12-2500
. Swift Current System	250	NA	NA	4,000	
Low Yield Aquifers					
Judith River Fm. System					
. Kindersley Segment	7,000	NA	800	9,000	2-3000
. Cypress Segment	13,000	NA	1,100	15,000	2-3000

Source: E. F. Durrant, Consulting Engineer.

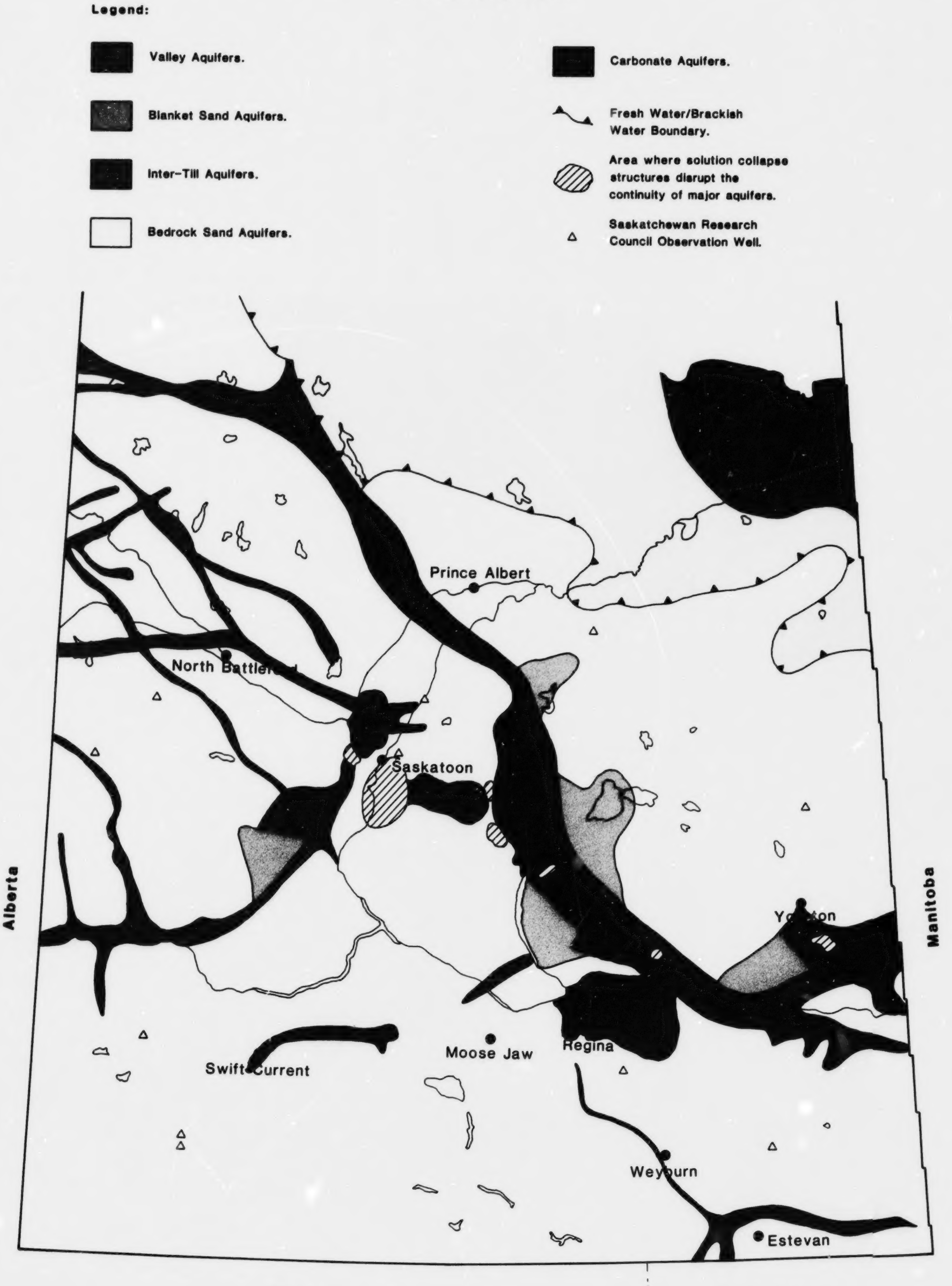
Water Availability in Saskatchewan

Map 4


Legend:
With 10 miles of firm supply of 4,000 Ac. ft. per year.
Fully allocated. New farm domestic use and small towns only.
Caution required. Special study of all new uses exceeding 100 Ac. ft.
No large streams, therefore no large permanent supplies.
New applications considered but supplies are small.
Aquifer that can yield more than 4,000 Ac. ft. per year of good water.
ford
askatoon
Yorkton
Swift Current
Moose Jaw
Regina
Weyburn
Estevan
Alberta
Manitoba
Montana
North Dakota

Major Aquifers in Saskatchewan

Map 5


Legend:
Valley Aquifers.
Blanket Sand Aquifers.
Inter-Till Aquifers.
Bedrock Sand Aquifers.
Carbonate Aquifers.
Fresh Water/Brackish Water Boundary.
Area where solution collapse structures disrupt the continuity of major aquifers.
Saskatchewan Research Council Observation Well.
Prince Albert
North Battleford
Saskatoon
Yorkton
Moose Jaw
Regina
Swift Current
Weyburn
Estevan
Alberta
Manitoba
Montana
North Dakota

Water Quality

In general, the quality of **surface** waters in Saskatchewan is good and the water can be used for most purposes. However, there are exceptions where lakes or ponds have no outlets (such as Old Wives Lake and the Quill Lakes). Natural evaporation from these water bodies leaves the minerals behind. In extreme cases like Little Manitou Lake, the brine is more concentrated than seawater. In other instances, the lakes are used for recovery of sodium sulphate.

Some surface waters are naturally rich in phosphates and nitrates, and some are enriched by municipal and industrial effluents. These nutrients encourage the growth of algae and weeds. The subsequent decay of this organic material can impart an objectionable taste and odour.

In general, groundwater in Saskatchewan is slightly to heavily mineralized. The exceptions are shown in Maps 4 and 5 and Table 9.2. For the most part, Saskatchewan's groundwater quality has not been degraded by man's activities.

Floods

Flooding problems in Saskatchewan are of two kinds: floods that occur on river flood plains, and casual flooding of upland areas.

Many areas in western Canada are characterized by shallow depressions. Typically, these areas dry up during low runoff years and hay may be harvested. During a series of wet years, these sloughs or ponds keep filling and water encroaches on surrounding lands.

With modern equipment (and high land prices), more and more depressions are being drained. It is a common occurrence in Saskatchewan that, as a consequence of private ditching, an outlet from a depression is constructed to lead to another poorly drained area. Even if outlets are extended to a well-defined creek or river system, the aggregate effect of many drainage projects may be to increase flooding at downstream locations.

Although there has been widespread private drainage activity with increased intensity of development during the past few years, particularly throughout eastern and northern Saskatchewan, there have been over 100 Conservation and Development Areas formed over the years to deal with flood problems in an organized way.

TRENDS AND PATTERNS OF WATER USE

Water use in Saskatchewan is increasing, but the supply is not. Flow records show that the supply is extremely variable from year to year. Droughts occur randomly, but there is essentially no long-term change in the amount of runoff. To deal with the extreme variability of water supply, extensive development of storage facilities has taken place. However, as uses increase, water shortages will become more frequent and more severe.

On-Farm

Development of farm water sources has been characterized by the construction of tens of thousands of dugouts, dams and shallow wells, particularly since the beginning of the Prairie Farm Rehabilitation Administration (PFRA). The quality of groundwater is frequently a problem. Since the 1930s, much has been learned about how to cope with unreliable water supplies.

At present, many farm water supplies have been exhausted due to severe drought and water must be hauled or pumped from distant sources at significant cost, in support of household, crop spraying and livestock consumption. The trend toward larger, on-farm storage facilities (dugouts or dams) or deeper wells is likely to continue in the future to provide more reliable supplies for drought periods and to provide for increasing per capita use.

In the future, farm practices may have a marked effect on local runoff. Chapter IV addresses cultural practices, the possibilities for reduced summerfallow and increased irrigation. Many farmers are adopting improved snow management techniques in attempts to accumulate a deep even blanket of snow.

Municipal

The history of the development of public water and wastewater systems in Saskatchewan is short. There were only 30 public systems in the mid 1950s, all of them in cities and large towns. By 1960, there were 60 water systems and 70 wastewater systems. As Table 9.3 indicates, by 1980 there were 479 water systems and 443 wastewater systems. Virtually all of the systems serving populations of less than 1,000 have been built in the past 25 years.

Most Saskatchewan urban centres are now served by public water supply and wastewater disposal systems. The cost and quality of service varies widely, sometimes because of the location of the community and sometimes because of local decisions, but in general, the record of Saskatchewan municipalities in providing these services has been good.

Table 9.3

EXISTING URBAN WATER SUPPLY AND WASTEWATER DISPOSAL SYSTEMS, 1980

			-- Number of Systems --			------- Total Systems --------		
Designation	Population Range	No. of Centres	Water Only	Waste-Water Only	Water & Waste-Water	Water Supply	Waste-Water Disposal	Water and/or Wastewater
City	5,000+	12	0	0	12	12	12	12
Town	1,000-5,000	55	0	1	54	54	55	55
Town	1,000-	84	1	0	81	82	81	82
Village	1,000-	344	34	30	218	252	248	282
Hamlet	1,000-	425	38	6	41	79	47	85
TOTAL		920	73	37	406	479	443	516

Source: Data from Saskatchewan Environment, updated by Urban Affairs in 1981.

At present the smaller urban centres in Saskatchewan (less than 5,000 population) have a lower per capita water consumption than the cities. There are many reasons for the difference, but one of them is that many small towns have less reliable water sources and rationing is often necessary. In 1981 a survey revealed that water rationing has been necessary in recent years in about one-third of the urban centres.

If the smaller centres can secure a reliable supply, their per capita consumption will increase. It is also likely that population will grow faster in centres with reliable supplies. An assured water supply is an essential part of the infrastructure needed in a successful rural Saskatchewan community.

It is clear that entirely new systems will not be the highest priority of the future in most centres. However, what will be needed are replacements of aging components and systems; improvements and/or expansions in some centres to provide better service, or service to more people; and improvements in the treatment of wastewater.

Irrigation

In recent years, irrigation, discussed in Chapter IV, has been growing at the rate of about 18,000 acres per year in Saskatchewan. Most of this has been in private irrigation projects. The future trend in irrigation development will depend, in large part, on government support of irrigation in general and, in particular, on development of water supplies from the Saskatchewan River system.

Industrial

In the past, industries needing large amounts of water have generally located near major rivers. Industries needing modest amounts of water have located in or near urban centres with reliable water supplies and with an adequate municipal water system.

Lately, there have been some significant examples of industry developing new water supplies or importing water in order to minimize other development or operating costs. Electrical energy generation at Sheerness, Alberta and at Coronach, Saskatchewan are good examples. The former required a 95 km pipeline from the Red Deer River (with an extension to the town of Hanna for municipal water), and the latter is a large single-purpose dam on the East Poplar River. Another example is the use of surface water instead of groundwater for enhanced oil recovery in west central Saskatchewan. The new steam-driven recovery process will require surface water because of the high mineral content of groundwater in the area.

The needs of such industries are large, and water importation schemes for them could be a real boon to rural Saskatchewan. Southeast of Saskatoon, for example, the needs of potash mines were combined with the needs of towns, irrigation, wildlife and recreation (Blackstrap Lake) to develop an overall supply scheme in the late 1960s that no single use system would have supported.

Recreation and Wildlife

Most of the water-related recreation facilities south of a line through Saskatoon are located on reservoirs or lakes with controlled levels. A large part of this development occurred during the past 50 years. There are many more opportunities for stabilizing water levels for recreation, wildlife and the attraction of tourists, but the continuation of the trend will depend upon the dedication of new water supplies (mostly from Lake Diefenbaker) for those purposes.

Although the recreation, tourism and wildlife projects benefit all residents of Saskatchewan, some of the economic and aesthetic values accrue to rural Saskatchewan.

MAJOR WATER CONSTRAINTS IN RURAL DEVELOPMENT

Since the supply of water in southern Saskatchewan is extremely variable in time and place, and the quality is likewise quite variable, it can serve as either a strength or a weakness to rural development.

In some parts of Saskatchewan there are abundant supplies of good quality surface water. But there are large areas where activities are constrained by the difficulty (or cost) of obtaining reliable supplies.

Map 4 and Table 9.1 provide an overview of the problem areas. Inadequate water supplies are a serious deterrent to development in many Saskatchewan communities.

Almost all of the groundwater in the southern half of the province is marginal or unacceptable for domestic use by United Nations standards. Nevertheless, groundwater supplies can be developed for farms and small communities at much lower cost than surface waters. Therefore, Saskatchewan's water quality criteria accept about three times the maximum mineral content as specified by the UN. However, a significant cost in the use of most groundwater is the huge expenditure by individual farms and urban centres for water treatment (softening, reverse osmosis units, carbon filters) to make it acceptable for household use. Poor water quality also restricts the use of groundwater for irrigation and industry. There are a few notable exceptions, such as the development served by the Regina aquifer. However, in general, the poor quality of the province's groundwater is a severe restriction upon its use.

On-Farm

On many farms adequate water can be provided from nearby natural sources or by tank truck or pipeline from distant sources. The major constraint is costs. In some cases a constraint has also been the unwillingness of urban centres to extend services to farms. Such constraints impede the utilization of grazing land, feedlots, dairy operations, developments of shelterbelts, garden and field irrigation, weed spraying, and household uses. Where farm water sources are costly, there are very real constraints on farming operations. Household or domestic use is usually sustained, regardless of cost, unless farm living is abandoned. Enterprises involving livestock or irrigation are generally not undertaken until water supplies are secure.

Many farms have water supplies that will survive minor droughts, but many supplies fail in a drought that extends beyond one year. Under such circumstances, water may be pumped over land or trucked from distant sources at great cost until the drought is over. Emergency programs for pumping water long distances have gradually become an integral part of sustaining farm supplies in some areas of Saskatchewan.

Municipal

Statistics collected by the Department of Urban Affairs in a 1980 survey, and through its regular programs, showed that the water supply sources for 104 communities were susceptible to drought. This is shown in Table 9.4.

Table 9.4

NUMBER OF COMMUNITIES WITH WATER SUPPLIES SUSCEPTIBLE TO DROUGHT

	Population of Centre					
Susceptibility	**Over 2,000**	**1,000 to 2,000**	**500 to 1,000**	**250 to 500**	**0 to 250**	**Totals**
High	4	11	18	24	23	80
Medium	3	3	8	3	7	24

Statistics show that 35 percent of the urban communities in Saskatchewan had inadequate water supplies during the period 1980 to 1983. Most of these communities were the smaller ones serving the farming community as well. When farm supplies fail, the backup source of supply is usually the nearest urban community. As a consequence, the impact of drought on small urban centres can be serious.

Regarding the quality of water supplies in small communities, the survey showed that 194 out of 482 municipalities submitted information on the total mineral content of their supplies (total dissolved solids in parts per million). Table 9.5 shows that, of the 194 municipalities, 70 (36 percent) reported a TDS greater than 1,500 ppm, the maximum objective for drinking water set by Saskatchewan.

Even though the overall municipal water supply situation in Saskatchewan leaves much to be desired, it is estimated that $50,000,000 per year is currently spent on these systems. Much of this amount is generated by the local municipalities, although there is significant support provided through the senior government programs cited later in this chapter. The high cost of improving water supply sources is a major constraint on securing reliable supplies of good quality water.

Table 9.5

RANGES OF WATER QUALITY IN SASKATCHEWAN MUNICIPALITIES REPORTING, 1980

	For Municipalities with Population					
TDS (ppm)	**Over 2,000**	**1,000 to 2,000**	**500 to 1,000**	**250 to 500**	**0 to 250**	**Totals**
	Number of Municipalities					
0-499	2		1	8	9	20
500-999		6	14	8	23	51
1,000-1,500	3	3	8	14	25	53
Over 1,500		3	8	16	43	70
TOTAL REPORTING						194

Industrial

There are few constraints imposed on existing industries by inadequate water supplies. That is because industries, in the first instance, do not locate where the water supply is not adequate for their needs. However, **potential** industrial development is constrained by inadequate water supplies.

The extensive coal beds in Saskatchewan could support very large thermal-electric developments and coal gasification projects if water were available near the coal. At present, in a low flow year the Boundary Dam Power Plant requires all of the flow of Long Creek for cooling water. Similarly, the Coronach Plant requires all of the flow of the East Poplar River. Any new thermal-electric generating sites would require a major water storage and/or an importation scheme.

Projects for the enhanced recovery of heavy oil will also require large amounts of good quality water. Until the sources have been identified, at acceptable cost, the development will be constrained.

The location of a heavy oil upgrader is constrained by water availability as well as other factors. The Regina upgrader will use treated groundwater from the Regina Aquifer. The Lloydminster upgrader will use water from the North Saskatchewan River.

Many smaller industries such as distilleries or agricultural processing plants pass up the small towns in part because of inadequate water.

Irrigation

As shown by Map 4 and Table 9.1, additional intensive irrigation projects, using local water supplies, can no longer be considered in much of southern Saskatchewan. Even where water from the South Saskatchewan River could be used, there is an overall constraint on the development of new irrigation projects.

Considering two consecutive dry years, the supply available from the South Saskatchewan River is slightly less than 3,170,000 dam^3 per year. Present commitments are as follows:

	Annual Requirement
- 4.2 m^3/s release to maintain water levels and quality at Saskatoon	1,340,000 dam^3
- Broderick Canal	185,000 dam^3
- Qu'Appelle Diversion	142,000 dam^3 (1981)
- Evaporation from Lake Diefenbaker	230,000 dam^3
- Consumptive use for all purposes upstream from Gardiner Dam and on Swift Current Creek	43,000 dam^3
TOTAL	1,940,000 dam^3

The amount of water remaining for expansion of all consumptive uses, including irrigation, is 1,230,000 dam^3. Setting aside 200,000 dam^3 for all other uses, the remainder would be sufficient to irrigate more than 500,000 acres. Obviously this is a long-term, rather than a short-term constraint. However, it recognizes irrigation as a consumptive use and by far the major component of water use - representing almost 90 percent of consumptive water uses in Saskatchewan.

It is important to recognize that there are a number of competitors for water, with the main ones being power generation, irrigation, recreation, and domestic and industrial users. Completion of the Nipawin dam and power generating station will result in three hydro plants on the Saskatchewan River, with one fully dependent upon the Diefenbaker reservoir and the other two partly dependent. Power generation and irrigation are both very large consumers. As hydro generating capacity grows, its energy inputs become an increasingly important part of the total power supply in the province. Inevitably, this creates pressure to maintain consistent year-round flows downriver to supply the generating stations.

As noted earlier, the overall quantity of water is limited and subject to variable flows. The Province will need to study the economics of the alternative uses of water and make decisions accordingly regarding the priorities for its use.

Recreation, Tourism and Wildlife

There are extensive wetlands in rural Saskatchewan that are excellent producers of waterfowl in good years, but become dry mud flats in drought years. Ducks Unlimited and others have developed some breeding areas with stabilized water levels so that some waterfowl will be produced even in dry years. However, waterfowl and other marsh species such as muskrats still lead a precarious existence. Under natural conditions, that harvest from wetlands is variable and unreliable.

Floods

A major impediment faced by farmers who want to drain their lands is the limited capacity of the major waterways that receive the drainage flows. Individuals or groups may be willing to look after internal drainage problems within the bounds of the lands they own or control, but some of these projects must eventually discharge into a stream or river. If the receiving waterway is already hard-pressed to handle floods, those who live beside it will not welcome additional drainage waters.

A second impediment is that responsibilities regarding drainage have not been clear. Prior to January 1981, there were basically no laws regulating drainage works in Saskatchewan. In essence, common law prevailed and the drainer could be responsible for any downstream damage proven to be caused by his works. Now, The Water Corporation Act - 1984, which supersedes The Drainage Control Act of 1981, requires any person to first obtain approval of the Corporation before constructing or using drainage works.

DEVELOPMENT OPPORTUNITIES

Regional Water Distribution Systems

Before considering how to relieve water supply constraints in Saskatchewan, it is worthwhile to look at a typical irrigation district in southern Alberta. Many years ago, a network of water distribution canals was built in southern Alberta primarily to increase crop production through irrigation. Today, almost all water uses in southern Alberta are served by those systems, including irrigation, other on-farm uses, municipal, industrial, wildlife, recreation and others. Until recently, in those irrigation districts, there have been very few constraints on water use for any purpose, and activities could be located and developed without considering the water constraint. In recent years, as the projects approached full development, the constraints reappeared because of the fixed capacity of the canal system.

In one part of southern Alberta that does not have a water distribution scheme, it was necessary recently to build a 95 km pipeline from the Red Deer River to Sheerness to provide cooling water for a large coal-fired thermal-electric power plant. This scheme would have been single-purpose if the government had not insisted on additional capacity to supply the town of Hanna and some agricultural requirements.

There are several large water distribution schemes in Saskatchewan, but only one is truly multipurpose The Saskatchewan Water Corporation is now responsible for the Saskatoon Southeast Water Supply System. The Saskatchewan Water Supply Board built this system in the late 1960s by extending the east side irrigation canal from Lake Diefenbaker beyond the Broderick Reservoir to the Blackstrap Valley and to a point near Lanigan. The system serves irrigation, recreation, wildlife, several towns and potash plants. Within the area served by this system, the water supply constraint has been removed.

The Task Force concluded that where the Water Corporation installs and operates a supply line to any community, it is very important that contracts or agreements with the community or communities to be served, avoid any terms or conditions which may impede or restrict development in neighbouring communities.

Eston and Kindersley are served by a pipeline from the South Saskatchewan River. The 100 km pipeline relieved the constraint on the growth of these towns for a time, but more capacity is needed now. Lloydminster, Midale, Moose Jaw and Regina are other examples of cities or towns served by long pipelines. Because these projects are single-purpose, direct benefits are not available to any other users. This is tragic for economic development in surrounding communities which are faced with such alternatives as developing their own pipeline systems or proceeding without adequate water for many purposes.

Water, and particularly good water, can be a powerful tool in promoting a wide range of economic development and should be used to good effect. Too often the objective of delivery systems has been simply to take water from a suitable source and deliver it to an individual community.

The Task Force concluded that in all cases where a major water delivery system is being planned, the location, design and capacity of the system should take into account the potential for commercial, residential and agricultural development in areas or communities adjacent to the water system.

There is a major trans-basin diversion from the South Saskatchewan River to the Qu'Appelle River. This diversion serves many users, with particular emphasis on municipal supply, recreation and wildlife.

The above suggests two important conclusions. Firstly, if an adequate water distribution system is built at the outset, the economy of the area can grow with no serious water constraint. Secondly, if development in a water-short area is going to occur in spite of the water constraint, a single-purpose water scheme (pipeline) is the most likely solution unless a senior government intervenes on behalf of other potential users.

There is an obvious role for government to monitor the water constraint facing all potential users in all regions of Saskatchewan, and to have in mind strategies for resolving those constraints with multipurpose water schemes. As a consequence, there is a need to identify those parts of the province where it is feasible to remove the water constraints through water transfers. The costs and benefits should be fully examined, including the economic, social and environmental consequences. Then priorities, budgets and schedules can be established for proceeding with the work.

Emergency Water Supplies During Droughts

During a drought, many surface streams dry up as do shallow reservoirs and near-surface aquifers. Three emergency activities are common: water conservation and rationing, emergency water transfers, and emergency well-drilling.

Conservation measures are usually introduced at the local level without any need for government intervention. Governments provide equipment for pumping water from distant sources to sustain levels of on-farm and small community reservoirs. Unfortunately, during a prolonged drought there are few backup sources of supply from which to pump in some areas. Emergency well-drilling offers a quick solution if the location of a suitable groundwater source can be found.

Backup water sources for overland pumping could include emergency wells or surface water reservoirs with carry-over storage. It would seem to be an appropriate role of government agencies to identify where such sources are needed and, in the case of reservoirs, to arrange for construction in anticipation of a future need.

Under the ARDA program, the Saskatchewan Research Council produced a series of geology and groundwater resources maps which has proved extremely helpful in locating groundwater. However, the information contained in that map series is somewhat elementary and incomplete. New data has been accumulated for most parts of the province and should be incorporated into a new series of maps.

The Task Force believes that the collection and analysis of current data and the publication of a new series of maps is justified. As the mapping program is conducted, a few exploratory wells could be drilled to assess particularly promising areas. The new maps would assist farmers, small communities and industry to develop more dependable long-term water supplies and would indicate potential sources of supply that could be developed quickly in the event of a drought.

Pollution Prevention

Since the natural quality of Saskatchewan's water supplies is quite variable, and in many cases unsatisfactory, it is important to protect these sources from further pollution by man's activities.

Municipal sewage systems provide for the storage and treatment of liquid wastes that contain a broad range of constituents, including plant nutrients. Usually, provincial regulations permit discharge from lagoons only in the spring or at other times when the receiving stream is in flood, thereby diluting effluent to acceptable concentrations. However, the nutrients can accumulate in lakes and marshes, stimulating the growth of weeds and algae.

In recent years, lagoon-treated sewage effluent has been used successfully for irrigation of fodder crops instead of being discharged into a stream. This practice appears to have considerable merit and should be encouraged.

The runoff from livestock feeding areas and from feedlots is also rich in nutrients, as are the lakes and marshes where waterfowl congregate during migration. A recent government-assisted program was aimed at capturing runoff from feedlots and holding it in shallow ponds until it evaporates and, in so doing, reducing the phosphorus loadings to the Qu'Appelle River system. However, feedlots throughout the province continue to be a source of unwanted nitrogen and phosphorus. A feedlot that discharges to a closed pond on the operator's land restricts the problem to the operator. But those that discharge into a stream or a lake, or into freshwater aquifers, must be regulated. The enforcement process under The Livestock Pollution Control Act would be more successful if it included a financial assistance package.

Some recent papers have suggested that the practice of summerfallowing permits soil nitrogen to percolate downward into shallow groundwater aquifers. In the same way, the artificial application of nitrogen fertilizers may affect groundwater. An increase in nitrogen levels has been reported in a few specific aquifers, but no studies have been made of province-wide developments in this regard.

Floodway Improvement

In some parts of Saskatchewan, the main constraint on development of adequate drainage for agricultural lands is the limited capacity of the channels that must receive and carry away the surplus waters. Present government programs assist conservation and development areas to develop their internal drainage systems, but, except for current plans to improve the conveyance capacity of parts of the Qu'Appelle River, there is no program for enlarging the flow capacity of the receiving channels outside the jurisdiction of the Conservation and Development Areas. From time to time, there are special projects to increase channel capacity to protect specific areas (such as the Qu'Appelle River through Lumsden and the Moose Jaw River at Moose Jaw), but there is no overall policy or program. A program for designating and increasing the capacity of floodways for agriculture runoff would be beneficial.

Other Opportunities

A wide range of actions may be possible to remove the water constraints in specific situations. For example, fresh water can be "harvested" from the roofs of farm buildings by attaching eavestroughs. The harvested water must be stored in a cistern for later use. In an area where well water is of marginal quality, it can be mixed with harvested rain water to improve quality.

Another possibility is the demineralization of brackish water. Brackish water (surface and groundwater) can be found in most parts of Saskatchewan, but inexpensive systems for demineralization are not available.

Much work has been done by the Saskatchewan Research Council on natural freezing as a purification process. It has been tested at Frontier, Saskatchewan, but it is still somewhat experimental. Commercial systems are available for demineralization by reverse osmosis or electro-dialysis, but these methods are very costly. If a standard modular system could be developed and manufactured at low cost for Saskatchewan conditions, it would remove a major constraint for securing adequate domestic water supplies in many areas.

GOVERNMENT PROGRAMS

Water problems in western Canada have concerned governments for many years. Historically, senior governments have provided massive financial assistance for water development. However, the problems are becoming larger and more frequent as water uses increase, more effluents are discharged, and more agricultural land is drained. Present government water programs and gaps are identified and discussed briefly in the following section.

Technical and Financial Assistance for Water Supply, Sewage Disposal and Irrigation Projects for Individual Farms and Small Communities

The PFRA provides individual farmers with technical advice and one-third of the cost, up to a maximum grant of $1,650, for the development of water sources (surface or groundwater). For individual irrigation projects, the grant limit is $2,200. If five or more farmers form a legal association, they are eligible for technical advice and a group grant of 50 percent of the project cost for development of a water source or an irrigation project. In the case of irrigation projects, the grant applies to the water source and delivery works, not for on-farm distribution or water spreading. The 50 percent policy also applies to the development of water sources by small hamlets of 300 persons or less.

The Saskatchewan Water Corporation has two programs for assisting well development on individual farms. One program provides technical advice and one-third of the cost of wells deeper than 258 feet (the limit of the PFRA grant at $6.40/foot). The second program provides 50 percent of the cost (up to $3.00/foot) of one test well, with E-logging, per farmstead. A rural municipal water supply program of the Saskatchewan Water Corporation provides 50 percent assistance for the cost of developing a community water well.

A new program of the Saskatchewan Water Corporation provides engineering and technical services for sewer and water to small towns, villages and hamlets with a population less than 1,500.

Large provincial grants are available for irrigation development. Individuals may receive a grant of $100 per acre, paid out over a three-year period, for a new irrigation development, up to a limit of $50,000 per individual. In addition, the individual may still qualify for the PFRA grant of $2,200.

The Saskatchewan Water Corporation also administers a District Irrigation Development Program that provides planning and financial assistance to Saskatchewan farmers for the development of irrigation projects. In addition to engineering services for the investigation, construction, operation and maintenance of projects, and technical services for the organization and administration of irrigation users' associations, financial assistance is available as follows:

- 85 percent of the costs of construction of main and secondary works required to supply water to each irrigable parcel in a district, and
- operation and maintenance assistance during the first five years of operation, decreasing from 35 percent in year one and ending with 5 percent in year five.

Both the PFRA and the Water Corporation provide equipment for overland pumping of water from backup sources during droughts to fill reservoirs for individuals and small communities.

The above programs provide rural residents with good support in their search for water. However, there are two factors that limit their effectiveness. One is that very few areas of the province have water sources that could support a large amount of irrigation development (see Map 4). The other is that, in drought years, there are many areas with no backup water sources when farm wells go dry, or dugouts and dams are low or dry.

Technical and Financial Assistance for Urban Water and Sewage Works

The Saskatchewan Water Corporation administers a program that can provide towns, villages and hamlets with grants of up to 50 percent of the cost and a $300,000 limit for the construction of raw water sources and transmission, water treatment and storage, or sewage treatment and disposal. In addition, for water supply pipelines exceeding one mile in length, grants may be made to cover 50 percent of the cost of construction up to a maximum of $300,000. Cities are not eligible for similar grants, although they may qualify for grants of 10 percent to 15 percent of the cost of sewage treatment works under The Pollution Control Assistance Act.

Through the federal/provincial Economic and Regional Development Agreement (ERDA), additional assistance may be offered to urban communities. Special agreements are made to solve difficult water problems such as the 25 km pipeline from the North Saskatchewan River to Lloydminster, or the new dam and reservoir on the Souris River at Weyburn.

None of the above grants can be applied to in-town water distribution and sewage collection networks. However, loans are available commercially or through the Saskatchewan Housing Corporation for such works. The loans can be repaid through a frontage tax. In addition, as noted earlier, a PFRA program can assist communities of 300 persons or less with technical assistance and grants of 50 percent of the costs of developing water sources.

None of the foregoing programs are concerned with the everyday operation and maintenance of water and sewage treatment plants. Some reports indicate that unprofessional operation of facilities has on occasion resulted in the following concerns:

- delivery of unsafe water to consumers,
- delivery of treated water that is not as good as the plant is capable of producing,
- discharge of effluent that does not meet provincial objectives,
- waste of chemicals and labour with higher treatment costs, and
- premature plant obsolescence.

If the Province would provide an "operating improvement" grant to assist a community or group of communities with the cost of hiring a qualified operator, it is likely that the demand for qualified personnel and for retraining and certification of present operators would increase significantly. Saskatchewan's technical colleges and the Saskatchewan Environment on-site training program could handle the demand.

Water Planning

The recently established Saskatchewan Water Corporation has a clear mandate to undertake the planning for regional water supplies. Previously, some water planning was done by Saskatchewan Environment and some by Saskatchewan Agriculture but neither was able to give sufficient attention to long-range regional planning of water uses and sources. The Water Corporation is still in the process of acquiring staff, setting priorities and getting planning work underway. It is too early to comment on the scope and effectiveness of regional water planning, but the Task Force believes that such planning is an essential component of rural economic development.

Research

Both provincial and federal agencies have done much water research in Saskatchewan. Particular mention should be made of hydrologic data collection, regional studies of floods and runoff, examination of water sources and needs in specific river basins, disposal of sewage lagoon effluents, desalination of brackish water, relationship between agricultural practices and runoff, and groundwater studies.

Areas that have been somewhat overlooked include water harvesting and low-cost treatment systems for on-farm use (so that brackish or contaminated waters could be treated and used for domestic and stock watering purposes), and for small urban use.

Flood Damage Reduction

There are no programs, federal or provincial, for financial aid to individual farmers for drainage. Provincial programs for aiding agricultural drainage have been limited to groups of farmers organized as Conservation and Development Areas or Watershed Associations. The present program of the Saskatchewan Water Corporation includes:

- review of economic feasibility,
- technical and engineering services, and
- financial assistance for approved projects, as follows:

Type of Project	Water Corporation Share	Maximum Corporation Contribution
Flood Control and Drainage	66 2/3%	$60/acre on area assessed by local authority
Backflood Irrigation	85%	$110/acre on area assessed by local authority
Multipurpose	Negotiable	Negotiable

The Corporation may also contribute up to two-thirds of the maintenance costs. In May, 1980 a committee of provincial officials identified gaps in the program and recommended the following:

- change the maximum contribution rules,
- include dyking, relocating and flood-proofing of farm buildings,
- vary financial assistance according to runoff characteristics of the area served and increase it if water is retained or levels are stabilized for wildlife, recreation and other like purposes,
- implement a main channel improvement program, and
- implement a gully and sheet erosion assistance program.

A program for main channel improvement is essential for a balanced program for reducing agricultural damage from flooding. Related to this need is an existing program of assistance to rural municipalities for channel clearing. The Saskatchewan Water Corporation will provide up to 66 2/3 percent financial assistance to RMs for brush clearing and disposal, obstruction removal and disposal, silt bar removal and silt removal to original constructed gradelines for the purpose of natural channel clearing and obstruction removal, and for maintenance of existing drainage ditches that are the responsibility of the municipalities.

In connection with item (e), the Water Corporation administers a program of technical and financial assistance to individuals and organized farm groups for the purpose of controlling erosion and stabilizing gullies. Technical assistance from Saskatchewan Agriculture supports this program of organizational and financial assistance from the Water Corporation. Financial assistance may be extended up to 66 2/3 percent of all eligible construction and maintenance costs.

To assist urban centres to alleviate flooding caused by flood water entering from outside the limits and passing through the urban centre, the Saskatchewan Water Corporation administers an Urban Flood Control Program. This program includes engineering and technical services for investigation, design, construction of works, operation and maintenance, as well as financial assistance for project construction and maintenance. Basic construction assistance is 50 percent, modified by a number of conditions including the drainage area and population. Maintenance assistance may be up to 66 2/3 percent of the cost of maintenance work carried out by a municipality on flood control works.

RECOMMENDATIONS

The consolidation of Saskatchewan's water agencies in 1984 to establish the Saskatchewan Water Corporation provided the basis for a major improvement in provincial water services. For rural residents, the establishment of strong regional offices has made it easier to seek and to obtain information on water, apply for water rights, or apply for grants. However, the Task Force identified additional actions which should be taken to enhance the contribution of water to rural development in Saskatchewan, and recommends the following:

1. In its water resource planning, the Province should give greater consideration to multipurpose schemes which will assist in rural economic development, both on farms and in small urban centres. This should be a high priority for both the short and long term.

   Contracts or agreements by the Province to deliver water to certain areas or communities should avoid any terms or conditions which may impede or restrict developments in neighbouring communities.

   This recommendation should include further effort and attention to the need for additional water sources in rural areas to provide backup supplies during prolonged droughts.

2. In addition to the existing assistance programs for drainage projects by organized groups, the provincial government should assume responsibility for the improvement and maintenance of the major waterways that must receive the drainage.

3. In the process of investigating the feasibility of all drainage projects, greater emphasis should be placed on alternatives for practising water conservation (such as snow management, strip or contour farming, cultural practices, and small supplemental irrigation projects).

4. More research and development should be undertaken regarding low-cost systems for treating brackish water so that it can be used for domestic or stock watering purposes as well as for small urban communities. In particular, research should be directed to the development of low-cost modular systems for use in Saskatchewan. Research should also be undertaken to determine the effect of summerfallow practices on the downward movement of nitrogen.

   Since water is a major, precious resource in Saskatchewan, the Province should undertake more study of how to develop and use water to greater advantage in economic development, and develop policies and programs accordingly.

5. The Province, in conjunction with the federal government, should prepare updated maps of geology and groundwater resources.

CHAPTER X

QUALITY OF RURAL LIFE

The strong bond which exists between rural people, their way of life and their communities has always been considered a great strength of rural Saskatchewan. The traditional values of caring for others, sharing with those less fortunate, co-operating for a common interest, and the ideas of compatibility and harmony with nature are all exemplified in Saskatchewan's rural lifestyle. These are the foundations upon which the province was built, and from which the future social and economic development of Saskatchewan will evolve.

The Task Force was left with the impression that, for the present at least, quality of life issues are being viewed primarily within an economic framework. It was indicated by most of those consulted that economic development would generate the required resources, both human and financial, to support the infrastructure of social development services. Conversely, it was indicated that lack of economic development would further hasten the removal of social amenities and essential services from rural areas. The economic viability of their communities seems to be an overriding concern for many rural residents.

In general, respondents expressed satisfaction with the health, education and social services available to them. This is not to say that all rural communities have the range and quality of services they would like to have or even may require for the continued future development of their community. Rather, it seems to indicate general acceptance of the way in which their needs in these areas are being met under the existing structure for delivery of services.

As part of the Task Force's consultation process, all government departments and Crown corporations were invited to outline their views and suggestions with respect to a rural development strategy. Excellent submissions regarding quality of life issues were received from the Departments of Health, Social Services, Education, Advanced Education and Manpower, Culture and Recreation, and from the Women's Secretariat and the Senior Citizens' Provincial Council. The Task Force also reviewed a series of papers prepared for the Saskatchewan Committee on Rural Area Development in 1980 as part of its project on community viability and rural survival. Several proceedings issues of SCRAD conferences were also reviewed.

The Task Force acknowledges that its consideration of rural development from a social perspective is cursory at best. Time constraints and the high priority given to economic development by those with whom the Task Force consulted account for the limited analysis of social issues. Indeed, the social side of rural development could well form the basis of a separate study, such is its complexity and its significance.

SOCIAL SERVICES

It is the mandate of the Department of Social Services to promote the well-being of Saskatchewan residents. The Department fulfills this mandate by providing financial and support services for those who are unable to provide for themselves, protecting children against abuse and abandonment, providing substitute care for children and the disabled, and providing rehabilitation and development services.

In working towards the goal of independent living for all, the Department delivers some services directly (such as income assistance), and encourages and enhances the ability of community agencies to identify and meet the need for the remaining social services (such as day care and crisis intervention centres). It is in the latter area that the department sees the greatest potential for rural development. It believes that local organizations, with assistance from government, can play a key role in providing community and family support services.

Income support and family support services which are delivered directly by government staff are readily accessible to both urban and rural residents through a regional service delivery network. A discrepancy in service availability does exist, however, with respect to the range of services offered by non-government social service agencies located in urban centres and funded largely or exclusively by government. Examples of such services include family and person counselling, day care, transition houses, crisis intervention services, group homes for handicapped or emotionally disturbed children, and Big Sisters and Big Brothers programs.

The Department of Social Services sees a need to increase accessibility by rural residents to these kinds of services, either through direct government provision or through expansion of the Non-Government Operation network into rural areas. The Government's role could be to assist communities and existing NGOs to develop plans and service delivery models appropriate to rural conditions and to provide financial support. Just as the development of these services in urban centres was made possible by government funding, so does their extension into rural areas depend upon such support.

Another need identified by the Department of Social Services was to conduct social impact analyses in conjunction with major economic development projects. Such studies would assist communities and government in anticipating and meeting related social service needs.

HEALTH

The people of this province have a long heritage of interest in health care developments, a heritage that dates back to the pioneer days of this century. Saskatchewan provides the widest range of health services in Canada. Hospital, medical and nursing home services are complemented by an extensive range of community-based preventative, treatment and support services. These relate to public health, mental health, home care, dental care, drug coverage, alcoholism services, aids to the disabled, and ambulance services.

The demographics of Saskatchewan probably present the biggest challenge to the province's health care system. In 1984, persons over the age of 65 made up approximately 12 percent of the provincial population, yet 43 percent of Health's budget went for the elderly. About 54 percent of Saskatchewan's 124,000 elderly live outside of the cities. More specifically, whereas 11 percent of the urban population is elderly, 20 percent and 17 percent of the town and village populations, respectively, are 65 years of age or older. The implementation of a province-wide home care program was a major step forward in terms of making available, to the rural elderly, services which their urban counterparts had enjoyed for some time.

Efforts to integrate small hospitals and special-care home facilities, a recent development, represent an innovative approach to the need to redefine the role of small hospitals and to meet the care needs of the growing number of elderly. The health needs of the elderly, and particularly the blockage of hospital beds by long-term care elderly patients was raised several times by rural residents as an area of concern. Municipal officials specifically identified the need for additional level IV care facilities and the need for provincial support.

The declining role of small hospitals as the providers of acute care services is a by-product of larger changes in the health sector, changes whose impact on rural residents needs to be assessed. Increased medical specialization, the greater use of medical technology and the difficulty in attracting physicians to small centres are all factors which affect the rural health care system. The centralization of specialized services (both physicians and technology) almost exclusively in Regina and Saskatoon has far-reaching implications for rural residents by virtue of the distance they must travel to access those services and the associated costs and inconvenience. These developments raise many questions which need to be considered. They may impact upon the economic viability of communities to a greater extent than has been previously recognized.

In its submission to the Task Force, Saskatchewan Health pointed out that the health services provided in rural areas were important not only as services per se, but also as significant providers of local employment. Small hospitals alone provide over 2,000 jobs for rural Saskatchewan. Health also pointed to the extensive involvement of local people in the management of local health services via the various board structures for managing hospitals, special-care homes, ambulance, home care and public health. As well as providing economic spin-off to a local community, these institutions are essential if:

- rural communities are to retain their population reaching retirement age who tend to migrate to centres providing the desired level of health care, and

- new business and industry are to be attracted to the area.

The Province of Quebec has recently announced a series of initiatives aimed at attracting both general practitioners and specialists to smaller centres. Among these are the provision of special funds to update equipment in smaller hospitals, and payment of higher fees to both GPs and specialists who practice in such centres.

The Task Force recommends that consideration be given to a similar program of incentives to prevent further erosion of the numbers of medical practitioners in rural Saskatchewan.

Saskatchewan Health has established a Committee on Rural Medical Practice which is examining some of these issues, particularly from the physician supply perspective. Its report should be completed in mid-1985.

EDUCATION

Education has always been an important part of rural life in Saskatchewan. The early settlers were quick to provide instruction for their children in homes or in rudimentary schoolhouses. Through the depression and war years, teachers, parents and trustees kept schools open, often with little money and few resources.

In its submission to the Task Force, the Department of Education indicated that rural children have basically the same educational opportunities as children in urban centres. In support of this statement, they pointed to a number of studies which show that on standardized basic skills tests, no significant differences exist between urban and rural student achievement. Although some weaknesses exist in the areas of vocational-technical, business and fine arts, those involved in education believe that these weaknesses are more than offset by the following strengths frequently ascribed to rural schools by both educators and parents:

- In small schools, the teacher knows each child as an individual and can make special provisions for special needs and talents.

- Small schools, like small groups, are easier to manage. The administrative policy decisions that absorb endless time and energy in large schools do not exist in smaller settings.

- Rural schools provide a kind of heterogeneity rarely found in urban or suburban settings - heterogeneity of social class.

- The entire community is involved in the school.
- Small schools compel the different social groups in the rural community to come to terms with one another at an early age and on a comparatively equal basis.
- More students participate in more extracurricular activities in small schools than in large ones and more students feel critically important to the success of their group activities.
- Participation is an important educative tool in its own right. In the community-involved rural schools, it can become a solid basis for the development of self-esteem.

One limitation identified by the Department of Education vis-a-vis the rural educational system is that smaller schools are less able to offer optional courses, many of which are aimed at increasing equality of opportunity. Availability of staff to teach these courses is thought to be a major constraint in rural areas.

The Task Force was made aware of three main concerns about education by those consulted:

- There is a general concern that school units have become too large, or at least that the school boards have become too far removed from their electorate. There appears to be a strong desire to have more of the control of the education system returned to the local level.
- There appears to be a concern that the education curriculum has strayed away from the basics, or the "3 Rs." Many respondents expressed a desire to see more emphasis placed on English, mathematics and the sciences, with substantially less emphasis on the "frills."
- There is an overall concern, as indicated by members of SARM and SUMA, that the funding of education must be either removed from the property owner or that school boards must become more accountable for their expenditures and taxation requirements. Many respondents felt substantial cost savings could be achieved within the education system by allowing more local control over expenditures.

The Task Force was also concerned about the lack of business education programs in high schools and at universities. This concern would not apply to university or technical school students specializing in commerce and economics-related areas. It was thought that our educational system had an important role to play in developing an understanding of basic economic and business practices as well as private entrepreneurship.

In its submission to the Task Force, the Department of Advanced Education and Manpower described its mission in terms of providing Saskatchewan residents with ongoing learning and career opportunities and providing employers with information and assistance to access a skilled labour supply. It expressed support for a rural development strategy which supports, encourages, and complements initiatives at the community level by local residents. Among the main strengths in rural Saskatchewan identified by this department is the considerable energy and initiative of the people themselves. In commenting on major impediments to rural development, it noted that some residents experience a sense of geographic isolation from the "mainstream." It suggested that this sense of isolation is often most acute among young people and professionals or semiprofessionals living in rural Saskatchewan. It went on to suggest that expanding the range of amenities available to rural residents to bring them more in line with those enjoyed by urban residents would be one way to alleviate this problem. In the field of post secondary education and training, efforts have been underway for several years to make these programs more accessible to rural residents, recognizing that it is not always feasible for individuals to move to urban centres to obtain education and training.

The use of new technology in the area of distance education is thought to have great potential in terms of expanding educational opportunities for rural people. This potential is addressed in the following excerpt from Advanced Education and Manpower's brief:

> ". . . *we anticipate a day when the province's fibre optics network combined with new program formats, will provide an array of educational opportunities to residents of rural Saskatchewan that will considerably enhance their sense of the 'quality of life' which they enjoy."*

In the meantime, the current assortment of university, institute and community college programs provides a fairly solid basis for meeting the educational and training needs of Saskatchewan citizens. The community colleges, in their role as brokers of educational services to the rural areas, identify the interests of local residents and then endeavour to procure and provide those services. The advent of the community college system has brought to rural residents a broad array of learning opportunities previously unavailable at the local level. Some respondents expressed the view that community colleges should be more selective in their offerings by placing more emphasis on economic oriented programs.

CULTURE AND RECREATION

The brief prepared by the Department of Culture and Recreation highlighted its direct involvement in community development in the areas of sports, culture and recreation. This involvement is in the form of support to municipal councils and municipally-established bodies such as recreation boards and arts councils. This department's brief cited individual initiatives as the main strength in rural Saskatchewan, as did the brief from Advanced Education and Manpower. Culture and Recreation maintained that its programs are designed to assist and strengthen individual and local initiative. In their view, there are no impediments to rural development which cannot be overcome through the initiative and expertise of rural residents.

This department identified municipal government, municipal recreation boards and cultural associations as existing bases from which further economic and social development could evolve. A number of limitations to rural development were identified. However, as was previously noted, none were considered insurmountable. The limitations identified included:

- lack of staff to plan and advise,
- lack of awareness of the proper channels to seek information, advice and co-ordination,
- reluctance among some communities to co-operate in planning and sharing resources on a district basis, and
- the low priority frequently given to cultural and recreational services by municipal councils.

Several forms of additional government assistance were suggested in the Department brief. These included:

- compilation of a comprehensive inventory of sport, cultural and recreational facilities and programs at the local level,
- promotion of intercommunity co-operation and co-ordination,
- encouragement of more community planning,
- development of selected heritage sites as tourism attractions, and
- recycling of heritage buildings for community recreation and cultural programs.

This department put forward two suggestions aimed at enhancing government's responsiveness to rural development needs. One was for the establishment of an interdepartmental committee to co-ordinate the efforts of those departments whose programs and services impact on rural Saskatchewan. The other suggestion related to the possibility of regional planning boards that would bring together urban and rural municipalities in a certain geographical area to discuss potential areas for intermunicipal co-operation.

SENIORS

The Senior Citizens' Provincial Council, an advisory body to the Minister of Social Services, prepared a submission for the Task Force's consideration. In addition to identifying specific priorities, the brief included extensive and relevant demographic data relating to rural Saskatchewan. Reference has already been made to the fact that

Saskatchewan's elderly population is proportionately larger than in any other province except PEI, that a 25 percent increase in the number of seniors in Saskatchewan is expected in the next 15 years, and that the greatest increase will occur in the over-80-years age group. The Council's brief analysed these broad demographic trends and produced a profile of the elderly population in rural areas specifically. Some of the highlights are:

- 54 percent of Saskatchewan seniors live in communities defined as rural by the Task Force;
- seniors comprise 13 percent of the total rural population, 11 percent of the urban population;
- 11 percent of seniors live in villages, 16 percent in rural municipalities, 27 percent in towns and 44 percent in cities;
- compared to the general population, seniors are overrepresented in towns and villages, underrepresented in cities and RMs;
- the high proportion of seniors in villages (17 percent) is due to declining numbers of young residents as much as to growth in the older population.

The Council identified transportation, housing, health care, employment and pre-retirement education as areas of concern that should be given priority.

Transportation has been identified as one of the primary areas of concern for many rural elderly. The view of the Council is that without transportation services, "independent living becomes isolation living."

Regarding housing, the Council indicated that rural areas are more likely to require incentives for upgrading existing accommodations. It suggested that a shelter allowance program could be most efficient and effective in rural areas. It believes that such a program might decrease the need for public housing units as well as allow seniors to remain in their own homes. Concern was also expressed about the possibility that the Saskatchewan Housing Corporation would reduce senior citizens' housing stock in rural areas.

In health care, two issues were identified. The first related to access by rural seniors to physician services, particularly specialist physicians. The second concerned an expansion of preventive health care opportunities for seniors in rural areas, perhaps through the establishment of "well elderly" clinics in senior activity centres.

The lack of employment opportunities for seniors in rural communities was identified as a problem. The Council maintains that many seniors who retire to small rural communities would like the opportunity to supplement their pension or savings income through part-time employment and they required employment initiatives in this regard. This is an important idea which merits early further consideration.

Another priority was for more pre-retirement education programs, perhaps via the community college system which currently offers some courses in this area. Many seniors would be able to pay for at least a portion of the costs of such programs.

In terms of overall philosophy, the brief emphasized the Council's belief that programs and policies developed in rural areas should be directed towards encouraging and enabling seniors to continue living in their community of choice. It expressed strong support for a decentralized approach to planning social and economic programs and pointed to the District Co-ordinating Committees established by Health as an example of this approach.

WOMEN

The Women's Secretariat, a government agency reporting to the Minister Responsible for the Status of Women, provided the Task Force with a brief overview of concerns and issues which relate to rural women. These are discussed briefly below.

The Secretariat's brief indicated that 39 percent (1981 data) of Saskatchewan women live in rural areas. Also, the participation of Saskatchewan women in agriculture is much higher than any other province. About 11 percent of women in Saskatchewan's labor force work in the agricultural sector. This is the highest rate in Canada, with Alberta having the second highest at 5 percent.

Increasingly, rural women are participating as partners in the ownership and operation of farm businesses. The Secretariat suggested that the participation of women in farming operations could be enhanced by strengthening their management skills and their knowledge of the agricultural sector. This was the first goal identified by the newly established Saskatchewan Women's Agricultural Network.

It was also noted that women in rural areas participate at a relatively high level in voluntary organizations, but their involvement in bodies such as school boards, municipal councils, business and professional organizations is low.

Several ways identified to facilitate more effective utilization of the skills, potential and perspectives of rural women included leadership training, educational opportunities, child care, and information resources. It was also suggested that an increased awareness of the contribution, skills and the need for equal opportunities was also required if women were to participate more fully in decision-making processes.

Research and consultation conducted by the Women's Secretariat generated the following list of problems and issues as identified by rural women themselves:

- access to child care services,
- pensions,
- job opportunities,
- participation in farm organizations,
- access to credit,
- family violence,
- rural isolation,
- access to health services and to public transportation, and
- educational opportunities.

In conclusion, the Secretariat wrote:

> *"Nowhere is the rapid change in our society being felt more profoundly than among families in rural communities. Rural women find themselves attempting to retain the values and advantages of a traditional rural lifestyle, while at the same time trying to cope with economic, technological and social changes of the 1980s!"*

The Secretariat stated that further study is needed to assist the Government in determining policies which support and provide incentives to women's efforts to participate fully in the challenges and opportunities available in the province. It suggested that a co-ordinated approach involving the Secretariat and the Departments of Rural Development, Agriculture, and Advanced Education and Manpower would be an effective mechanism to undertake the necessary analysis and develop proposals aimed at helping rural women become stronger partners in farm operations and to provide opportunities to participate more fully in rural development.

CONCLUSION

Given the limited time spent on issues of a social nature, the Task Force did not consider it appropriate to make major recommendations in this area. However, certain themes and concerns did emerge rather forcefully in the course of its consultations and deliberations, and members felt these should be identified.

The Task Force recognized the importance of locally directed development. It is the mobilization of resources (human and financial) within a community towards the determination of its objectives and towards organizing itself for action which drives development, social or economic.

A community development approach to social issues requires an understanding and a commitment to the basic principles of local initiative, local commitment, local participation and local control.

In keeping with this philosophy, the Government should focus its efforts on assisting communities to acquire the skills necessary to participate fully in planning and decision-making processes and thereby to assure them control of their own destinies. Such an approach is needed to restore the responsiveness and accountability which has been lost through years of consolidation and centralization.

The challenge lies in finding ways for local communities to play an active and meaningful role in their development. Equally important is the challenge which has faced successive governments in Saskatchewan; namely, the need to balance development and resource allocations between urban and rural requirements.

Two other issues which emerged as critical to the future viability of rural communities were strong local leadership and greater co-operation among communities. The Task Force heard repeatedly about the great need in both these areas.

RECOMMENDATIONS

1. The Government of Saskatchewan should consider:
    - providing support for the development of non-government organizations in rural areas,
    - the development of alternatives which would alleviate the blockage of hospital beds by long-term care, elderly patients,
    - providing incentives for medical practitioners to locate and remain in rural Saskatchewan, and
    - developing a program to provide more adequate facilities for level IV health care in rural areas.
2. High schools and universities should include more business management in their curricula.
3. The Government of Saskatchewan should consider decentralizing more of its services to rural areas.
4. The Government of Saskatchewan should design new programs which recognize that maintaining a healthy rural way of life and a strong rural economy is basic to the province's strength. This may require that rural areas be provided with levels of assistance beyond that provided to cities.

CHAPTER XI

OTHER CONCERNS

COMMUNICATIONS

Many people take for granted information, communication and the instruments which support these, such as telephones, televisions and computers. This is especially true of those living in cities where these instruments, networks and systems are so prevalent and accessible. Virtually all residents have private telephones with toll-free access to literally thousands of neighbours, professionals and businesses. Many city dwellers have 11- to 24-channel television reception. Most businesses in cities have either direct or indirect access to computers, which provide a wealth of business information and assistance.

Communications systems and instruments are not as prevalent nor as accessible in many parts of rural Saskatchewan as they are in the cities of this province. The conditions described in this chapter are having, and if not addressed will continue to have, detrimental effects on rural Saskatchewan, both in terms of social and economic development.

RURAL TELEPHONE TOLL CHARGES

Considering the relative isolation of many farms and small urban centres, and the distance between rural communities, the telephone is the most important communication instrument to rural Saskatchewan residents and business people. Most rural people are well served by Sask Tel, and accept the fact that they must pay higher monthly rentals due to higher costs of servicing sparsely populated areas. However, an area of concern in rural Saskatchewan is long distance toll charges.

Rural residents and business people must frequently make telephone calls outside of their own exchange for a wide variety of services such as business, medical, legal, or social. In a city setting, the majority of such calls would be made within the caller's exchange. While some of these calls are discretionary, many are not and therefore long distance toll charges place an additional burden on rural residents and business people not experienced to the same degree by their city counterparts.

Extended Area Service (EAS)

EAS is a service which, for a flat monthly fee (in addition to the normal monthly rental), allows all subscribers in one exchange to call or be called by all subscribers in an adjacent exchange without incurring any of the normal long distance charges. EAS was introduced by Sask Tel to permit subscribers in smaller communities to have low-cost communication access comparable to that in larger urban areas.

EAS is based on the concept of providing low-cost calling between neighbouring exchanges while retaining the concept of exchange areas for rating purposes. Communities-of-interest evolve across exchange area boundaries due to changes in trading patterns or industrial development, population concentrations, cultural and social patterns, or some combination of these factors.

The need for EAS arises because exchange area boundaries are relatively fixed whereas communities-of-interest tend to evolve or shift. The relative rigidity of exchange area boundaries occurs because technical design criteria and non-portability of installed facilities make it difficult and costly to change the boundaries once they are established.

In order for two exchanges to be linked with EAS, the following conditions must exist:

- the two exchanges must have a common boundary,
- the maximum distance between Sask Tel's central offices in the two exchanges shall be 30 miles, and
- subscribers from both exchanges must support the EAS decision by a majority determined by a vote.

Once the above conditions have been met, the EAS service becomes permanent and mandatory for all subscribers. The additional monthly charge is based on the distance between the central offices, as well as whether or not the subscriber is classed as residential or business. The additional charge ranges from $1.80 to $10.25 per month.

Dialpac

Sask Tel has recently made an application to the Public Utilities Review Commission (PURC) with respect to EAS and a new service called DIALPAC. In its submission, Sask Tel requested PURC's permission to discontinue any further expansion of EAS, but to leave all existing EAS locations in place. Instead of new EAS locations, DIALPAC would be offered to subscribers.

DIALPAC is intended to permit residential subscribers in smaller communities to have low-cost communication access to essential services located in other exchanges (such as a city) or shared by two exchanges (such as a doctor in one exchange and a lawyer in a different exchange). It also is intended to ease the communication costs of subscribers in smaller communities when arranging their social activities.

This service offers a residential subscriber, with a community-of-interest in a nearby exchange, an option of purchasing a toll credit package to be applied against direct distance dialed calls to that exchange. DIALPAC service will be available to nearby exchanges only if the central office of the subscriber's exchange is not more than 40 miles from the central office of the nearby exchange. The exchanges involved need not share a common boundary.

A subscriber may purchase only one DIALPAC service per month to any one exchange, but may purchase DIALPAC service to a maximum of three exchanges of his/her choice. The price of the DIALPAC service is based on 30 minutes (DIALPAC 30) or 40 minutes (DIALPAC 40) of daytime, direct distance dialed calls, and amounts to a discount of between 50 percent and 56 percent.

DIALPAC service may be used for calls placed at any hour of the day, provided that the calls are direct distance dialed from the telephone of the subscriber who has purchased the DIALPAC service. Calling time in excess of the toll credit obtained from DIALPAC service is charged to the subscriber at the applicable direct distance dialed rate.

The cost of DIALPAC will depend on distance between the exchanges' central offices, and the amount of free toll time purchased (30 minutes or 40 minutes). For example, DIALPAC 30 for a distance of 18 miles would cost $2.75 per month and provide a toll credit of $6.30 per month to the subscriber. DIALPAC 40 for a distance of 40 miles would cost $6.15 per month and provide a toll credit of $12.40 per month.

DIALPAC has the following advantages over EAS:

- no need for a common exchange boundary,
- greater distance between centres (40 miles vs. 30 miles),
- no need for a majority vote; individual choice,
- subscribers may discontinue any month, and
- up to three exchanges available (vs. only one).

Unfortunately, there are also some disadvantages to DIALPAC:

- Only **residential** subscribers will be eligible for DIALPAC. Since telephone toll charges can be a significant expense for small business in rural Saskatchewan, a service similar to DIALPAC would provide significant assistance to such firms. Businesses in rural Saskatchewan are already faced with the disadvantages of small and sparsely populated markets. In addition, many of their suppliers are outside their telephone exchanges. The Task Force was disappointed to learn that further EAS locations would not be provided and that DIALPAC would not be made available to nonresidential telephone subscribers.

- DIALPAC ceiling is too low for business. Even if Sask Tel had offered DIALPAC to nonresidential subscribers, the design of the service is such that it would provide only minimal advantage to businesses. The maximum credit under DIALPAC is $12.40 (for a $6.15 fee) for 40 minutes of toll calling. This is likely satisfactory for residential subscribers, but not nearly adequate for business purposes.

The Task Force commends Sask Tel for the service it has provided and continues to provide rural Saskatchewan. In addition to high quality service, Sask Tel has managed to keep its tariffs at a reasonable level. The Task Force realizes that the revenue earned on EAS does not meet the combined cost of its implementation and lost toll revenue. Exchanging this service for DIALPAC appears desirable, for both Sask Tel and residential subscribers. However, the losers in this development are the small business owners.

The Task Force is concerned about this and suggests that Sask Tel, in addition to offering DIALPAC as it is currently designed to residential subscribers, also offer a revised version of DIALPAC to nonresidential subscribers. Sask Tel could offer DIALPAC 60 and DIALPAC 80 to provide 60 to 80 minutes of toll-free calling to businesses under conditions similar to the current DIALPAC design. As with the EAS fee structure, it would likely be acceptable to charge businesses a premium for this service, compared to the residential rate. The Task Force feels that this suggestion would help protect Sask Tel's revenues, and also provide small rural businesses with lower telephone toll charges.

COMPETITION FOR LONG DISTANCE TELEPHONE SERVICE*

CNCP Telecommunications has made application to the Canadian Radio-television and Telecommunications Commission (CRTC) to share in the long distance market across Canada. The CNCP proposal to the CRTC is to interconnect its system with that of Bell (Ontario and Quebec) and BC Tel.

Should the CRTC approve CNCP's proposal, it would exacerbate regional disparities in Canada by adding greatly to the telecommunications costs of customers not residing in the more populated areas.

---

* Information for this section is based on the "Submission to the CRTC in Reply to Telecom Public Notice 1984-33," by the Honourable J. Gary Lane, Minister responsible for Communications, September 1984.

In Saskatchewan, a favourable decision for CNCP would negatively affect approximately 67 percent of the province's population (all those residing outside of Regina and Saskatoon).

One of the cornerstones of communications policy in this province has been the provision of universal access to telephone service, at a reasonable price, to all Saskatchewan residents. This policy has been pursued despite the challenge of a small population scattered over a vast and geographically diverse land mass which covers in excess of 650,000 square kilometres. Distributed over this area are 1 million people who reside on over 67,000 farms and in over 1,200 communities. Whereas 33 percent of the provincial population resides in Regina and Saskatoon, the remaining 67 percent reside in one of the many smaller communities or on farms.

Sask Tel's telephone network is consistent with the above-stated statistics. To provide basic exchange services, the province is subdivided into exchange areas to reflect the community-of-interest of subscribers. There are 342 exchange areas, the third highest number of exchange areas in Canada, exceeded only by Ontario and Alberta. However, Sask Tel ranks only fifth in the number of subscribers that are served. The lowest population distribution of any province in Canada and the vast geographical area covered have made basic exchange services very costly.

Financial Profile

Sask Tel relies mainly on message toll to contribute to the provisioning of local telephone service. In 1982, for example, the net revenue from local service was $52.3 million and total expense was $102.9 million. Toll service, on other hand, had net revenue of $179.4 million and total expenses of $54.8 million.

Despite cost disadvantages associated with providing service to rural areas, Sask Tel's local exchange rates are still among the lowest in Canada. The difference between the revenues and costs related to basic local telephone service must be made up by contributions from other sources, the largest of which comes from message toll service. In this respect, Sask Tel depends heavily on long distance revenues. In 1983, for example, Sask Tel's toll revenue comprised 65.5 percent of its total operating revenues. With the exception of Alberta Government Telephones, the other telephone companies' toll revenues were less than 60 percent of their total operating revenues.

In areas made up of hamlets and farm residences, the average cost for Sask Tel to serve subscribers is high. The following points illustrate Saskatchewan's rural population dispersion and the resulting high cost of providing telephone services:

- Farm residences represent 23 percent of the total subscriber base, a significant percentage when compared to other provinces.

- Sask Tel has the second highest number of route-miles of microwave systems in Canada.

- A rural improvement program undertaken to reduce multi-party line (MPL) load has resulted in an average MPL load of 2.7 subscribers per line. The approximate cost for this service is $1,300 per subscriber.

In providing service throughout the province, Sask Tel has applied two basic rate setting principles in order to attain universal access and a uniform level of service to all subscribers. One principle is the "Value of Service Concept." The application of this principle reflects the recognition that the telecommunications industry provides services that are worth more to some classes of users. For example, business subscribers pay a higher basic telephone charge, since telephone service has a higher value to them.

The other principle is "Rate Averaging." The fundamental advantage of this principle is that it allows rates to be developed, irrespective of disparities in cost due to type of terrain, location, population density, high or low traffic routes. The costs are averaged and, as a result, the same service is offered throughout the province at the same rate. Generally speaking, communities with 50 subscribers pay the same basic rate as do subscribers who live in communities with a subscriber base of 2,500 or less.

These rating principles, along with significant contributions from long distance service, have allowed local service rates to remain low, thereby achieving universal access and a higher quality of service throughout the province.

Implications of Interexchange Competition For Long Distance Service

Sask Tel's toll revenues are derived from intraprovincial long distance calling and from Sask Tel's share of the interprovincial long distance revenue. Of the projected toll revenues for 1984:

- 28 percent will be obtained from the corporation's share of Telecom Canada's Revenue Sharing Plan,

- 19 percent will be from long distance business shared with adjacent member companies, and

- 53 percent will be derived from intraprovincial calls.

Clearly, any competitive inroads into long distance service would result in a loss of toll revenue for Sask Tel. This revenue shortfall would have to be obtained by increasing rates charged for basic and optional exchange services.

In the long term, competition would drive prices toward service costs. The effect of this move, in the case of toll services, would be to eliminate the contribution that this service presently provides to telephone companies. Loss of this revenue would, in Sask Tel's case, result in insufficient revenues to permit expansion of new and improved service into the rural and uneconomical areas of the province. Indeed, this loss would make it difficult for the corporation to maintain the current level of service to these areas.

Pricing basic exchange service close to costs would impact most severely on rural subscribers, senior citizens (who comprise approximately 12 percent of the province's population), and low income subscribers such as welfare recipients. In all probability, subscriber drop-off would result.

The question of revenue losses raises another concern for the people of Saskatchewan. The largest single user of telecommunications in Saskatchewan is government - all three levels. Their basic telephone bills would rise with the introduction of competition. Unlike similar customers in the Bell and BC Tel territory, in Saskatchewan these customers would not benefit from any changes in long distance toll charges. Consequently, this would all fall back on the taxpayers. They would be paying more for their own home phone, and paying more through taxes to support increased government telephone bills.

The Honourable J. Gary Lane, Minister Responsible for Communications in Saskatchewan, has made a submission to the CRTC urging the Commission to deny the application of CNCP in the interest of supporting the present equitable telephone service. The Task Force fully supports Mr. Lane's submission and echoes the sentiments raised therein. Considering the enormous investment ($1.1 billion) in Saskatchewan's province-wide telephone system and the affordable, universal access to telephone service which is currently being provided, long distance competition by CNCP would be extremely harmful to the Saskatchewan telephone system.

As concluded in Mr. Lane's submission to the CRTC, "If approved, the CNCP application would only serve a select few in certain regions of this country. It would prove to be to the detriment of others, and would have the effect of widening the gulf of regional disparity in our country."

TELEVISION SERVICES FOR RURAL SASKATCHEWAN*

People living in the rural and remote areas of Saskatchewan do not have access to the same television services as those living in cities and more heavily populated areas. If equity of television services is to be achieved, this imbalance must be changed through extension of access.

The majority of Canadians have access to three Canadian television networks: CBC English, CBC French, and CTV. People in communities near the American border were the first to realize that by erecting a quality, higher community antenna, they could also receive television signals from the USA. These signals were shared among local residents by running a cable into each home.

People living in areas north of the border soon demanded access to American television. This prompted the business community to react to this market demand by developing a new entertainment industry - cable television. The introduction of services occurred first where it was most economically attractive; that is, in the larger communities. Most major centres (population over 1,200) in Saskatchewan will soon have cable television.

Basic service includes: three Canadian networks, four American networks - ABC, CBS, NBC and PBS (referred to as 3 + 1), a community channel and channel space for educational television. In addition, recently introduced discretionary services provide the alternatives of pay TV or movie channels such as First Choice and Superchannel. Specialty channels are now available, and more will arrive soon, including children's, sports, 24-hour news, and other similar programming.

Communities far from the border once demanded, and received, the same television services as those with access to USA channels. Rural communities now see the roster of available options in urban centres, and wonder why they should be content with just two or three channels. Rural and remote areas in Saskatchewan want equity in television services.

Existing Services in Saskatchewan

The CBC English, CBC French and CTV networks are available virtually everywhere in Canada. The operational costs of these networks are covered wholly or in part by advertising revenues, hence these networks are often referred to as commercial networks. These networks are available "free" to anyone capable of picking up the signals, using ordinary "rabbit ears" or roof mounted antennas.

---

* The Task Force gratefully acknowledges the assistance received from Saskatchewan Communications in providing information for this portion of the report.

The American 3 + 1 networks are the main attraction for cable TV viewers. Cable TV signals in Saskatchewan are no longer provided by community antenna, but through a more complex routing. American network signals are picked up at the USA border and transported on Sask Tel's fibre optic and microwave network to cable operators throughout the province.

Pay TV and specialty services are discretionary services available to cable TV subscribers who are willing to pay an additional fee. Pay TV subscribers rent or purchase a special decoder that allows them to receive the programming. In Saskatchewan, pay TV signals are not provided by Sask Tel, but are received directly from ANIK satellite.

Communities in Saskatchewan unable to acquire American television from Sask Tel do have an option. Such communities can obtain such signals from Cancom (Canadian Satellite Communications Inc.).

Cancom is a television wholesaler using satellite to provide signals, including 3 + 1, for a fee. Cancom signs affiliate agreements with retailers, which sell the signals (usually at a profit) to individual subscribers in a community. To safeguard their commercial interest, Cancom "scrambles" its signals, and only authorized affiliates can use them. The affiliates can likewise guard their interest by scrambling any signals they transmit.

Direct Broadcast Satellite (DBS) is also making a debut on the technological scene. DBS is designed to work with satellite receiving dishes small enough to be affordable by the general public.

In the USA, one powerful Direct Broadcast Satellite, broadcasting five channels, is already operational. In Canada, however, true DBS satellites are not expected to be launched until 1990 when the present series of ANIK satellites are no longer operational. An interim DBS service for pay TV and specialty channels will, however, be piloted out of Toronto early in 1984 using ANIK C satellite. The impact of this service on Saskatchewan is expected to be minimal.

Technological Options

Other satellite signals are present in Saskatchewan. These are signals that originate in the USA, are intended for USA audiences, but spill over into Canada. Although it is legal to own satellite dishes in Canada, owners are not authorized to distribute satellite signals.

Servicing the sparse population of rural and remote areas of Saskatchewan poses a number of problems. It is not economically practical to install fibre optic cable to each small community in the province for additional TV signals. If cable is not practical, then over-the-air transmission is the only reliable option. The following three technologies could be used for over-the-air delivery: low power television (LPTV), multipoint distribution system using microwave (MDS) and satellite transmission.

Low power television (LPTV) is similar to broadcast television, as used by CBC and CTV, except for the low power output it employs to transmit signals. Where a high power transmission system would broadcast at 100 kilowatts and be received as far as 100 to 150 km away, an LPTV system uses from 5 to 20 watts and can be received up to 25 km away using an ordinary TV antenna.

LPTV can be used to broadcast the commonly used television channels, VHF channels 2 to 13; or, where these are already used, UHF channels 14 to 93. Where more range is required than can be supplied by one transmitter, repeater transmitters can be employed to extend the range of the signal. The equipment needed to broadcast one channel in a small region may cost as little as $18,000; five or six channels would cost close to $100,000.

Multichannel or multipoint distribution system (MDS) is a microwave system that has been used in the United States to distribute commercial television programming. MDS technology currently being developed will be capable of transmitting up to eight television channels across a distance of 50 to 80 km. Through the use of repeater stations, this can be extended over an even larger area.

In Canada, the frequencies used by MDS for television transmission are allocated for Instructional Television Fixed Service (ITFS) - an educational application. ITFS is now used in only three locations across all of Canada. Recently, an application has been made to the Department of Communications (DOC) by Transman Communications in Brandon, Manitoba, to use these same frequencies to provide an eight-channel commercial service to southwestern Manitoba. The proposed service would be provided using five existing broadcast TV towers of CKX-TV, Brandon. The project implementation cost is $5.4 million for the five sites.

The reception of MDS microwave frequencies requires the use of a special antenna which must be set up in direct line-of-sight with the transmitting tower. The Brandon application states that subscribers would pay a fee of $250 for the installation of the receiving antenna. An additional $15 per month subscription fee for programming, and an optional $15 per month fee for one pay TV channel, are expected to make the operation commercially viable.

Use of satellite to distribute television services to rural and remote areas has one outstanding attractive feature. Anyone within the satellite "footprint," an area that would cover all of Saskatchewan, is capable of receiving signals.

The signals are received on earth through use of satellite dishes. The original satellite signal source can be located anywhere within "line-of-sight" of the satellite, which would be anywhere in Canada. Satellite receiving costs vary, dependent upon specific application.

Implementation Strategies

At least two implementation strategies can apply these technological options to solve the equity problem: local government/community level initiatives, and private sector initiatives. The three options briefly outlined above will be examined for implementation possibilities.

LPTV is currently implemented in as many as 50 locations in Saskatchewan. Being broadcast undertakings, LPTV stations require broadcast licences. Under The Broadcast Act, provincial governments or their agencies are not eligible for such licences. Local community enterprises are eligible. A small business, co-operative, or a community television association can become licensed.

The broadcast range of an LPTV station varies with its power output and the terrain surrounding the station. The range can be as far as 15 to 20 km. This feature has been found attractive when implementation has been attempted in Saskatchewan. Several small communities often form an association to establish a local community broadcast station that serves all of them. To accomplish this, a certain number of committed subscribers is required. These subscribers pay monthly fees to cover capital and operating costs.

The signal to be distributed can come from several sources. If the area to be served lies on or near the fibre optic network, the American network signals carried by Sask Tel can be used. Each new "breakout" from the fibre optic system would cost Sask Tel approximately $50,000. An alternative is satellite reception. Any community in the province can receive signals provided by Cancom. Purchase of satellite reception equipment costs approximately $30,000. The same equipment can be leased from Sask Tel for a $3,000 provisioning fee, plus $595 per month. The advantages and disadvantages are as follows:

Advantages

- Everyone within the broadcast radius, including farm homes, can receive signals using ordinary antennae.
- Implementation can be initiated and encouraged at the local level without a massive government program. This type of activity would be an excellent example of an Area or Community Development Corporation project (see Chapter V).
- It is possible to insert local program signals on occasion, such as community television.
- The equipment is affordable, can start small, and can build into a larger operation.

Disadvantages

- Interference between various broadcast signal sources occur as stations proliferate.
- Theft of signal by non-subscribers can be a problem.
- The electronics required to "scramble" signals are expensive.

The multipoint distribution system proposed by CKX-TV, Brandon, is a multichannel service originating from five networked locations. It would cover all of southwestern Manitoba. The service could provide 39,000 rural Manitoba homes with the equivalent of cable television programming.

Saskatchewan could have a similar broadcast undertaking if a private station were encouraged to use its facilities for such a purpose. Unfortunately, Sask Tel's microwave towers, which could be used, average only 250 feet in height. These lower towers could only transmit to a radius of 30 kilometres.

Sask Tel's current policy is to provide coaxial television cable in communities where there is a licensed cable operator willing to provide programming. Licence applications for small communities have been based upon economic considerations. The number of potential subscribers determines whether or not a private entrepreneur is willing to invest in a cable television operation.

This situation has undesirable consequences. It means that while full service programming has become available to larger centres, service to small communities has not proceeded. Thus they must make do with only two or three channels. Such small communities are sometimes only a short distance from a larger centre. This development has also been supported by the use of Sask Tel's fibre optic network to carry American network programming to cable operators. The fibre optic network services the 52 largest centres in southern Saskatchewan.

The introduction of 3 + 1 to Cancom satellite programming is a new factor in this situation. Cable operators are now encouraged to seek licences to service many larger communities not on the fibre optic network. The operators can install a satellite receiving system which provides programming to the Sask Tel local cable network. The CRTC recently licensed, for cable television, 29 additional communities not on the fibre optic network. These licences were all awarded to cable operators presently operating in the province. The smaller communities are slowly being serviced with cable television, but the economics of the situation determine the availability of service.

A means of encouraging cable TV investments from within the smaller communities must be developed. This would accelerate the process of getting better services to smaller communities, and would allow the communities to determine their own needs. Sask Tel could play an important role in this process by continuing to cable communities. However, Area and Community Development Corporations could also play an important role in bringing cable TV to rural Saskatchewan. The main advantages and disadvantages of this approach would be as follows:

Advantages	**Disadvantages**
- A full range of services could be provided via local cable to parallel services of larger communities.	- Farm homes would not benefit from the system.
- The precedent for this system shows it to be feasible.	- As communities become very small, costs quickly become prohibitive.
- Other local services, such as security and interactive videotex, can be introduced in cable systems.	- The systems would not be networked; i.e., they would receive signals from a central source in Saskatchewan.

SASKATCHEWAN COMMUNICATIONS ADVANCED NETWORK (SCAN)*

The preceding section discussed television for rural Saskatchewan for the more traditional purposes of television such as entertainment, news, weather and current affairs. However, rural Saskatchewan's remoteness and sparse population have created needs for its residents in addition to those listed above.

Currently, rural people who wish to exchange ideas and information with one another are often forced to travel long distances. Many individuals who want to participate in a university or technical course are obliged to travel to larger centres such as Saskatoon or Regina, or have personnel from universities and institutes travel to outlying communities to instruct. Government departments and agencies wishing to communicate with their clients must print and distribute information. These means of communication have not always been the most efficient.

---

* Much of the content in this section of the report comes from a Saskatchewan Communications White Paper entitled "Saskatchewan Communications Advanced Network (SCAN)."

The Government of Saskatchewan has recognized that the province's modern communications system is a valuable resource which, if effectively and imaginatively utilized, could serve the public interest in many ways. A network, called the Saskatchewan Communications Advanced Network (SCAN), is proposed to carry a variety of new communications services to the public, including community television, cultural information, educational services and access to computer data bases, plus a host of other services that would evolve over time. SCAN would be intended to complement traditional ways of communicating by making access to certain kinds of information easier through electronic communication.

At present, SCAN is only a proposal. A white paper was distributed in 1984, describing SCAN and its potential to the public, and soliciting public reaction to the proposal.

SCAN initially would be carried on the provincial telephone system and Sask Tel's cable network. The telephone network would reach all of the province's communities with some form of information communications. As the cable network reaches 52 communities, approximately 60 percent of the province's population could have access to the full services of SCAN.

SCAN services would be delivered by:

- specialized television (educational, informational and cultural programming would be available to anyone on the cable television network),
- telephone conferencing (interaction between groups would be a possibility wherever the telephone system reaches), and
- information data banks (could be accessed from anywhere on the telephone system through use of specialized equipment).

It would be possible for these technologies to be used individually or in conjunction with one another. A live televised presentation originating in one community could, for example, be carried either to all or to select communities on the cable network, while the viewing audience might be linked via telephone conferencing to facilitate questions and discussion.

In certain communities served by the network, specialized SCAN centres could be established for the purpose of providing easier access to otherwise unavailable services. All the equipment necessary to conduct meetings, including data access terminals, telephone conferencing equipment and television receivers, could be supplied at such centres.

SCAN would be capable of providing a variety of services which promise a vast range of potential benefits to residents of the province.

Those wishing to transmit information to an audience could elect to distribute their material by: broadcasting locally-produced, purchased or live television programs; selecting one-way delivery of programs; or encouraging audience interaction by organizing telephone conferencing. SCAN services could potentially benefit the following:

- members of Saskatchewan's arts and cultural organizations, who could employ SCAN services to exchange information and provide a common cultural experience to an expanded audience;
- volunteer organizations,
- senior citizens, who could view television programs advising them of special health care services,
- farmers and ranchers,
- professionals, who could hold meetings linked via telephone conference with colleagues in other SCAN centres,
- those wishing to upgrade their skills without travelling long distances for seminars or courses,
- kindergarten to grade 12 students, who could receive network television programming during school days, and
- students, who could take sections of, or entire credit courses, without having to leave homes or jobs to relocate in distant cities, as instruction could be received at home (or at a local SCAN centre) through network services, i.e. television, telephone conferencing or videotex.

Another benefit of the development of SCAN would be the long-term saving in time and money which could be realized through enhanced information transmission.

The traditional practice of constructing schools and supplying teachers to train people is expensive, and the use of space and time is not necessarily efficient. It has been estimated that 60 percent of certain trades courses could be taught outside the traditional school by using techniques such as television, videotex and telephone conferencing or some combination of these technologies.

The potential exists for SCAN to be the catalyst for the development of an information industry. The network, as a market for high quality educational and instructional materials, could encourage the systematic gathering, packaging and distribution of Saskatchewan's recognized expertise in agriculture, mining, administration and the arts.

Producing or adapting information for distribution through SCAN would be expensive. The cost of producing a television program of 30 minutes duration, for example, could range from $3,000 to $30,000 and the adaptation of a prepared university course for delivery by telephone conference might cost as much as $10,000. These examples do not include the cost of delivery or administration.

High production costs, however, must be viewed in context, taking into consideration the fact that once produced, many materials could be used repeatedly and would reach a greatly expanded audience through network services. As a result of the network's ability to deliver timely, possibly urgently required information, certain savings could be realized as a result of increased efficiency.

There would be limitations on SCAN's ability to deliver services to all Saskatchewan residents. Those cable television subscribers dwelling in one of the 52 communities on the cable network would be able to receive complete SCAN educational/cultural television and telephone conference services. Those individuals who receive only telephone service would be able to receive SCAN's telephone conference services. Complete SCAN service could, in time, be extended to most communities through application of specialized technologies such as satellite or low power television. These system extensions, however, would be expensive to establish.

Availability of programming is another limitation of SCAN. A large amount of prepared material suitable for distribution on the network is currently available for purchase from sources such as TVOntario and Access Alberta. It would take some time before locally-produced materials were available for distribution on SCAN. The rate at which these locally-produced materials became available would be determined, in part, by the development of local expertise.

SCAN is a possibility. It could deliver information and expand education and training opportunities to people throughout Saskatchewan. Considering the information and communication opportunities which SCAN could offer rural Saskatchewan, the Task Force supports the efforts of Saskatchewan Communications and commends that organization for developing the SCAN option. If the general response to the SCAN White Paper is positive, the Task Force believes that the proposal should be implemented.

FARM MANAGEMENT INFORMATION

The agricultural industry contains some of the highest risk businesses in the world. Farming and farm management must deal with an endless array of volatile factors which contribute to very high risk, relatively low returns and many uncontrollable and changing factors, including high capital costs of land and equipment; high costs of fertilizers, pesticides, herbicides and water; an extreme dependence on weather conditions and soil types; rapidly developing technological advances; and volatile market conditions, usually making farmers and ranchers "price takers."

Two important additional factors are remoteness and distances. These relate to markets, suppliers and sources of information required to make sound management decisions. The farmer's urban business counterpart operates in an environment much more accessible to markets, suppliers and relevant business information sources (business consultants, large financial institutions, and related electronic information and data bases).

The effects of many of the conditions and problems mentioned above can be minimized with more and better information. Even the dissemination of information has traditionally been a problem for Saskatchewan farmers, due in part to the remoteness and distance problems.

Because more and better information is such a basic requirement, the great advances being made in the electronic information systems industry are vitally important to Saskatchewan farmers. These information systems and networks can provide the farmer great amounts of accurate, relevant and affordable information. Such information enables a farmer to better deal with his business problems, to make better farm management decisions and, ultimately, to improve efficiency and productivity.

Agritex

AGRITEX is a relatively new agricultural information delivery service made available by Sask Tel. AGRITEX information can be received on a combination of the farmer's existing television and a home computer (with some minor communications enhancements). In addition, Sask Tel will rent to farmers more sophisticated video and communications equipment, capable of receiving graphic and pictorial information.

The cost to users of the AGRITEX system is quite reasonable. Approximately $15.00 per month buys the consumer three hours of AGRITEX use. After three hours, the cost is $.06 per minute. In addition to this monthly service charge, users would have to rent or purchase a terminal.

AGRITEX is Sask Tel's "gateway" to information. In other words, AGRITEX is an access device to data bases made available by "information providers." Although there are a number of information providers, one of the most relevant of these to the Saskatchewan agricultural industry is "Grassroots."

Grassroots*

Grassroots was especially designed to provide a fast, dependable and relatively inexpensive farm tool that can help farmers better manage their businesses. This system puts the end user in touch with a large computer file of over 35,000 pages of vital farm information through private telephone lines. Following is a brief description of some of the types of information carried on Grassroots:

- Weather: includes weather information at the local, national and international levels for periods from 36 hours to 25 days ahead.
- Futures markets: provides information on the Chicago Board of Trade, Winnipeg Commodities Exchange, North America Commodity Exchange, and an educational program which explains the workings of futures markets.
- Cash markets: includes information (updated daily or twice daily) on cash prices for major grains and oilseeds in-store, Thunder Bay and Vancouver, street prices, special crops (price and delivery options), such as sunflowers, buckwheat, corn and pulses, beef and hogs.
- Market commentary: provided from information available from Farm Market Network, Canadian Cattlemen's Association, Broadwater Farm Services, Can Am Commodities, Canola Council of Canada, Statistics Canada, and International Wheat Council.
- Regulatory and reporting information: from such sources as the Canadian Wheat Board, Grain Transportation Authority, Farm Credit Corporation, Canadian Grain Commission, PAMI, VIDO and others.
- Farm management programs: to help farmers with complex marketing and production decisions.
- Miscellaneous agricultural information: such as seed information, producer cars, chemicals, equipment, and prairie research stations.
- Non-agricultural information: regarding such things as vacations, recreation, education, news, sports, finance, investments and banking.

This report does not list the above features of Grassroots with the intention of promoting this particular service. Furthermore, the Task Force is not in a position to evaluate or comment on the effectiveness or quality of the Grassroots system. The main reason for listing the above was to demonstrate the scope of information types which are available through such comprehensive data bases.

---

* Information on Grassroots was extracted from a brochure entitled "Grassroots," published by Infomart, November 1983.

The Task Force concluded that a network system such as AGRITEX and data bases such as the Grassroots type should be useful tools for Saskatchewan farmers. However, if Saskatchewan-relevant data bases are not available, then the Task Force recommends that such data bases should be developed for Saskatchewan farmers.

To develop a Saskatchewan data base would be a relatively long-term project (up to five years) and cost as much as $5 million. This raises the questions of who would develop the necessary data and information base, and who would pay for the development and maintenance of this information?

The private sector would seem to be a natural implementor for data base development. An entrepreneur, or group of entrepreneurs, could develop the information base, market the product through Sask Tel's AGRITEX network, and receive revenue from consumers, advertisers and information providers. However, the initial consumer market for this service may be quite small, resulting in small revenues from both subscribers and advertisers. Due to the length of time required for full development, financing and cash flow would be significant problems for the developers.

If it is agreed that Saskatchewan needs a "home-grown" data base and that such a development is not feasible for the private sector, then one might conclude that the public sector could play a role. In this regard, it is important to note that it is not just the farmers and the advertisers who benefit through the use of electronic data bases. As indicated earlier, better information should lead to improved productivity which should benefit the entire province.

Considering the potential benefits of a Saskatchewan agricultural data base, and that such benefits would be shared by many, consideration should be given to the development of such a data base with input by the Saskatchewan Government, the Government of Canada, the private sector, and the universities. These potential participants have the expertise and/or financial ability to contribute to this project. The Saskatchewan Computer Utility Corporation (SaskCOMP) has the technical expertise and desire to play leadership and co-ordinating roles for the project. Other agencies of the provincial government which could also contribute technical expertise, information or financing include Saskatchewan Agriculture, Saskatchewan Rural Development, Sask Tel, Saskatchewan Supply and Services Systems Centre, and Saskatchewan Finance.

The Government of Canada could contribute computer and agricultural expertise, as well as the financial assistance to this project. The private sector should have a major interest in this type of project as advertisers of products, and should be able to provide technical assistance and information.

A service such as AGRITEX, using a comprehensive and relevant agricultural data base, could be a very important tool for the Saskatchewan agricultural economy. Success in agriculture will almost certainly become more and more dependent on accurate and timely farm management information. The task Force suggests that the Government of Saskatchewan initiate the development of this project, with SaskCOMP playing a leadership role. As many sectors of the Saskatchewan economy as possible should be encouraged to contribute to this project, both financially and technically.

CONCLUSION

There are a number of communications conditions in rural Saskatchewan which pose barriers to either social or economic development. The issues and problems discussed in this chapter represent the majority of presentations made to the Task Force regarding communications. There may also be other communications issues or problems which need to be considered.

Although there are many advantages to living in rural Saskatchewan, rural residents also face a number of disadvantages. People living in the less populated and more remote parts of Saskatchewan have become accustomed to communications facilities inferior to those available in cities. However, technological developments have greatly facilitated the potential improvement for rural communications. As indicated in this chapter, this is particularly true of extended television service and farm management information. The issues of extended toll-free services for rural Saskatchewan and long distance service competition are in the hands of the policy makers, provincial and national.

RECOMMENDATIONS

1. Sask Tel should consider the feasibility of offering a revised version of DIALPAC to nonresidential subscribers in rural Saskatchewan as defined by the Task Force. This should assist the development of industrial and commercial activities in rural areas.

2. Emphasis should be placed on the use of low power television in less populous and remote communities for extension of services with Cancom programming.

3. Area and Community Development Corporations should be given serious consideration as implementation vehicles for the LPTV option.

4. Sask Tel should be encouraged to step up its program of cabling small communities and it should actively promote the use of cable for distribution of extended television services in these communities.

5. The Department of Tourism and Small Business should actively encourage and support private investment by individuals and associations within small communities to establish facilities expanding television services in these communities.

6. The Government of Saskatchewan should provide leadership in developing a more adequate program of farm management information for agriculture using the modern communication and computer data base capabilities now available.

CHAPTER XI

OTHER CONCERNS

ENVIRONMENTAL AND AESTHETIC CONSIDERATIONS

A study of the many factors that impact on rural development and rural living would not be complete without some mention of environmental and aesthetic considerations. Frequently it is difficult to apply precise dollar measurements to these kinds of matters. In some situations the problems or difficulties can be ignored, glossed over or deferred. The costs may be enormous, and at least in some cases may not apply as much to our current economy as to the economy and heritage of future generations. Some important considerations include the following:

- land protection,
- landscape improvement, and
- rat control.

Land Protection

Our society, with its strong orientation to growth and productivity, has striven for the greatest possible returns from our land resources. Increased production has received considerable encouragement from both government and the scientific community, and it is commonly promoted as a means to economic progress and even survival.

There are strong indications, however, that we must set our sights higher than simply increased productivity. Soil degradation is an unpleasantly descriptive term applied to a combination of factors including depletion of nitrogen and organic matter and a breakdown of soil structure, all of which contribute to reduced fertility and productivity. At the same time, frequent cultivations and particularly summerfallowing have promoted an increase in soil salinity, which also inhibits plant growth.

Scientists and others are becoming increasingly aware of the nature and extent of these problems. It is evident that all of our tillage, cropping and land management practices will require careful study and adjustment to protect our most basic and most valuable resource from the ravages of wind, water and man.

Landscape Improvement

Open plains, large wheat fields, rolling grasslands, the giant checkerboard of crops and cultivation so typical of Saskatchewan truly have their own magnificence. Perhaps the province's most effective and acceptable opportunity for improvement of nature's gifts is the addition of more trees.

Most urban centres, large and small, have done a great deal of tree planting and most farmyards have some shelter and specimen trees. Field shelterbelts, however, have had only modest acceptance, with the Conquest area being one example of an extensive program with gratifying results. The benefits in that area in terms of both beautification and soil protection from wind are significant, and the Task Force believes that an increase in such programs should be considered. An area near Crystal Lake has a field shelterbelt program of considerable size underway. This is expected to be much larger than the one at Conquest.

A more recent and different type of tree planting in Saskatchewan is the short rows of trees planted along the No. 1 Highway between Regina and Moose Jaw. These trees were planted in the late 1960s and the more adaptable species are now of a size to have a distinct and beneficial impact on the landscape in that area. This is a program which could be more widely adopted in rural Saskatchewan if a full evaluation concluded that such a program didn't lead to serious problems, such as blocking roads with snow.

With adequate advance planning, the availability of trees is not considered to be a limiting factor for additional plantings. The prairie area is served by federal nurseries at Indian Head and Edmonton. The present annual output is approximately 7 million trees at Indian Head and 2.5 million at Edmonton. The Indian Head nursery has the land base capacity to double its output. If a major planting campaign were to be undertaken, the nursery would require two years advance notice to have the required seedlings at a stage suitable for planting. The nurseries are placing increasing emphasis on proper planning, design and maintenance of plantings. An advisory service at no charge is available from Indian Head, where they have three technical staff who can provide on-site assistance.

Rat Control

It has been estimated that in Saskatchewan, the annual damage to buildings and loss of stored grain attributable to rats is in the order of $20 million. Furthermore, many urban centres, large and small, have serious, ongoing rat control problems. In past years modest attempts at control have been made, and currently there is an active committee called the Saskatchewan Rat Eradication Committee which organizes its activities through the Department of Agriculture extension regions and rural municipalities. This committee requires more legislative support and adequate funding to accomplish its purpose.

Individual communities or municipalities may have active and effective control programs, but if surrounding communities are not equally vigilant in their control measures eradication cannot be achieved. The current Pest Control Act gives municipalities the authority for compulsory action but it is not always enforced and control is therefore incomplete. The Task Force is convinced eradication will not be achieved until there is a provincial program supported by adequate staff and funds making rat control a specific objective.

It is recognized that an eradication program would require persistent effort over a number of years. It has been estimated that with an expenditure of approximately $1.5 million per year, full control could be attained in about 15 years. A more intensive program involving annual expenditures of about $2.5 million annually might result in control within a five- to eight-year period.

In addition to the general desire of Saskatchewan residents to be free of these pests, the estimated benefit-cost ratio of approximately 10:1 can hardly be ignored.

The province of Alberta has had a full-scale control program for many years and has been able to retain a virtually rat-free status. To maintain this position, Alberta has a very active program to identify and destroy any infestations along the Alberta/Saskatchewan border. It is understood that to maintain this state of affairs requires an annual expenditure in Alberta of approximately $200,000. If Saskatchewan undertook a rat eradication program, Alberta's rat problem would virtually disappear. It is well known that Alberta would very much like Saskatchewan to embark on such a program. The experience of Alberta in controlling rats over roughly a 30-year period could be of considerable benefit in developing a similar program in Saskatchewan.

RECOMMENDATIONS

1. Provincial programs should be developed to encourage more tree plantings for both soil protection and for landscape improvement.
2. A comprehensive provincial program should be established for the effective eradication and future prevention of rat infestations in Saskatchewan.

CHAPTER XII

LOCAL GOVERNMENT

The Task Force believes that municipal governments (rural and small urban) have a key role to play in enhancing the economic and social development in rural Saskatchewan. Since there are 299 rural municipal councils and 494 small urban councils in southern Saskatchewan, the province has a large number of elected leaders who are in a strong position to help direct the future development of rural Saskatchewan.* They are familiar with the local situations and many of the needs and opportunities of their respective areas, and have a strong interest in the well-being of their communities. With an appropriate development environment and adequate support from senior governments (such as technical assistance and supporting legislation), it should be possible for municipal councils to make a major contribution to rural development.

The Task Force did not undertake an exhaustive study of local government in Saskatchewan, although it did consult with the executives of the Saskatchewan Association of Rural Municipalities (SARM), the Saskatchewan Urban Municipalities Association (SUMA), and a number of individual municipalities.

This chapter reviews some of the major local government concerns that relate to the process of rural economic development, and includes comments on financing, assessment, municipal structure, legislation and district land use planning. Many of these aspects are very complex, and a comprehensive analysis of their impact on rural development was beyond the scope of this study. Therefore, this report does not comment extensively on the areas of local government finance and assessment, but rather, outlines those areas which it deems to have the greatest impact on rural development.

Implications of Local Government Finance on Rural Development

Although there are a number of factors which contribute to rural development - such as local leadership, desire for growth, population and intercommunity distances - local government financing is especially important. In recognition of the importance of local government finance, and especially property tax assessment, the Government of Saskatchewan in May, 1984 established the Local Government Finance Commission (LGFC) and gave it a two-year mandate to inquire into and identify options for possible changes to a broad range of financial issues facing local governments.

---

* The province has 12 cities, 143 towns, 363 villages and 13 northern hamlets. These numbers include 2 northern towns (La Ronge and Creighton) and 10 northern villages.

In addition to the LGFC, the Government of Saskatchewan appointed two other bodies to review property assessment. One of these is the Rural Development Special Committee on Assessment Procedures, chaired by Lloyd Sauder, MLA. The other committee, charged with the task of studying urban assessment, is chaired by Myles Morin, MLA.

The two committees and the Commission have the common objective of eliminating assessment inequities and achieving a better assessment system. The committees headed by the two MLAs have been concentrating on those aspects of assessment which could be changed in the short run, with a view to having specific inequities corrected for the 1986 taxation year. The Commission, while it may also have recommendations for some changes for application as early as 1986, will tend to concentrate on longer-term matters.

PROVINCIAL GOVERNMENT ASSISTANCE PROGRAMS

Local government revenue sources are not sufficient to provide the required or desired local infrastructure and services. In 1982, the rural municipalities received over $42 million from the Government of Saskatchewan in transfer payments to supplement local revenues. This represented about 30 percent of RM revenues in that year.

The Government of Saskatchewan provides financial assistance to local governments because:

- most local governments have inadequate sources of revenue under their own jurisdiction to provide for major infrastructure projects,
- all Saskatchewan residents should have a certain level of services and standards, regardless of where they choose to live,
- by providing less fortunate municipalities with higher levels of assistance, an equalization of tax burdens is achieved, and
- some projects, such as intermunicipal roads, are logically a joint responsibility.

Conditional Versus Unconditional Grants

The provincial government provides assistance to local governments under two broad categories: conditional and unconditional grants. As the name implies, unconditional grants have few, if any, "strings attached." Municipalities have much flexibility and therefore, local autonomy, in deciding how these funds will be spent. Unconditional grants represent about 35 percent of total provincial government grants to rural municipalities. The remainder is provided to rural municipalities in the form of conditional grants. Although the "conditions" attached to this type of financial assistance vary from program to program, the funds provided must be used for specific purposes and possibly meet other conditions as well. Conditional grants provide important local government financial assistance, but may result in the loss of some local government autonomy. However, most municipalities are in favour of having conditions because it enables them to deal with local pressures to undertake low priority projects, and it eliminates the undue influence of pressure groups or the danger of favouritism by a strong council member(s) who could control the use of unconditional funds.

There are important reasons for conditional grants. If the Province is going to provide funding to ensure that all Saskatchewan residents receive a certain quantity and standard of services, then it must direct or target such funds for the purposes intended. The Task Force agrees with the principle of providing minimum standards of services for all residents, regardless of location. However, the Task Force also feels that local governments should have a high degree of flexibility and local decision-making powers; in other words, autonomy. This appears to be especially important regarding new initiatives local governments may wish to pursue in undertaking rural development. Therefore, the provincial government should consider increasing the amount of funding provided on an unconditional basis. Local governments should be in a strong position to decide which services their residents require.

The Task Force agrees with conditional funding for those areas and activities where a "provincial" interest is involved. A provincial interest arises, for example, when people beyond a local area (such as an RM) are affected by activities or programming from within the local area. For example, in the grid road system it is important to have at least a minimum standard for all grid roads in the province. The Task Force believes that as few "strings" as possible should be attached to conditional grant programs to ensure local control of funding priorities.

OTHER SOURCES OF FUNDING

There is little doubt that more effective rural development will require an infusion of additional funds for a wide range of economic and social development activities. The challenge is to find new or untapped sources of revenue for municipalities and rural development. This section briefly outlines a few possibilities.

Area and Community Development Corporations

The concept of ADCs and CDCs is fully explained in this report in the chapter on Organization for Local Economic Development. In addition, some examples of how these corporate models can be used to enhance rural development are provided elsewhere in this report, as in the chapter on Communications.

The Task Force feels that not all facilities and services required or desired in rural Saskatchewan need to be funded by governments, at whatever level. A number of such activities, especially those related to social and recreational pursuits, as well as economic development, can be provided for by an active CDC or ADC. Whereas local residents may resist paying higher taxes, they will very often look more favourably to "investing" in their community, their children, and their elderly. The Task Force feels this attitude to be particularly applicable in communities where a realistic desire for growth and development is present.

The Government of Canada

There was a time when the federal government redistributed a substantial amount of its revenue to municipalities. Although the Government of Canada still maintains a presence with this type of funding, a number of federal government programs have been discontinued (for example, the Neighbourhood Improvement Program).

The Task Force realizes that the federal government is facing serious financial constraints and deficit problems. Nevertheless, there are a number of municipalities in Saskatchewan (and elsewhere) that have been particularly hard hit by recent economic, industrial and demographic changes. The Task Force suggests that the provincial government, together with SARM and SUMA, develop and present a case to the Government of Canada to request an increase in its participation in dealing with the financial difficulties of Saskatchewan's municipalities. For example, the magnitude of municipal sewer and water infrastructure development or replacement is such that no single government can finance it alone. Another area where federal government financial assistance is fully justified is in those municipalities negatively affected by rail line abandonment.

PROPERTY ASSESSMENT

Of all the issues studied by the Task Force, none were more complex nor more difficult to solve than the issues of property assessment and property taxation. Many of the individuals and organizations who made presentations to the Task Force raised these issues. It appeared that there was a high level of dissatisfaction with the current system. Although various solutions were suggested, it seemed that invariably the solutions offered to deal with one problem exacerbated or created other problems. It was beyond the scope of the Task Force to deal with these issues in depth. This section outlines those areas dealing with assessment and taxation most frequently raised at Task Force meetings with Saskatchewan organizations and individuals.

Current Revaluation Process

For the past nine years, the Saskatchewan Assessment Authority has been reassessing properties. This process has resulted in some major shifts in the incidence of taxation which were presented to the Task Force as inequitable and damaging to rural development. For example, there were many complaints about the following:

- The revaluation criteria have resulted in an excessive emphasis on gross productivity which has shifted taxation from heavier soils to lighter, less productive soils, and from dryland to irrigation land.
- The valuation of rural small holdings (residential, commercial and industrial) on the same basis as urban properties has caused a substantial shift from agricultural properties to non-agricultural properties within municipalities.
- The revaluation system discourages industrial, commercial and residential investment in small urban centres or in rural municipalities because it results in excessively high taxation levels in these areas relative to those in Regina or Saskatoon. This is a definite deterrent to the economic and social development of rural Saskatchewan, and it is imperative that these inequities be corrected if rural development is to be successful.

Since both rural and urban commercial properties are assessed on the same basis, and rural municipal mill rates tend to be higher than small urban mill rates, the result has been a serious deterrent to development in rural municipalities. Existing rural business would be better off, in some cases, to relocate to urban municipalities, or cities, where taxes are lower and services more extensive. This situation is hardly conducive to rural development.

Definition of a Farmer/Small Holdings

According to The Rural Municipality Act, a bona fide farmer is one who earns his/her chief source of income (over 50 percent) from agriculture. A bona fide farmer pays taxes only on his land, and none on any of his buildings. This definition creates a number of administrative and equity problems and should be changed. For example:

- How does an assessor know (not having ready access to income information) if the landowner receives more or less than 50 percent of his/her income from agriculture? This is complicated further by the involvement of spouses in farming operations.

- The definition of agriculture, in itself, tends to change from time to time (for example, regarding horse breeders, tomato growers, waste heat establishments and mushroom "farms").

- It appears that a beginning or small farmer is not being treated fairly. A farmer who must rely on off-farm income (exceeding 50 percent) in order to survive loses his farmer status and therefore pays taxes on some of his buildings, unlike so-called bona fide farmers.

- Some feel that a farmer living in a $250,000 farm house should pay more taxes than his neighbour with a similar size farm living in a $60,000 house. They both do not pay any property taxes on their homes.

The Task Force realizes that there are no easy solutions to the above perceived inconsistencies and inequities. It was suggested in a number of presentations that many inequities would be solved if all principal rural residences (small holder or farm), regardless of owner status, were assessed and taxed. Although this would increase farmers' assessments, it could also reduce mill rates to compensate for the assessment of principal residences. The objective is not to raise farmers' taxes, but to achieve greater equity.

The Task Force recommends that the LGFC consider this proposal as a possible solution to some of the current equity problems in the assessment system.

Variable Mill Rates*

Although the implementation of variable mill rates was not a suggestion made by presenters to the Task Force, it is a feature of assessment implemented in a number of Canadian provinces, including the other three western provinces. Variable mill rates could provide local governments with flexibility to alter the incidence of taxation to effect desired development or to achieve a more equitable system of taxation. However, this approach should not be used to deal with basic errors or inequities in the assessment system.

---

* Variable or split mill rates is a system whereby municipal councils may establish different mill rates for residential property, farmland, commercial property, and industrial property.

Some municipalities might want to encourage a particular sector of industry, while others might not. Some may wish to ease the tax burden for new farmers, whereas this may not be a priority elsewhere. Variable mill rates would give local governments a degree of autonomy and flexibility which would enable them to be more responsive to their own particular needs.

Under the current property tax system, municipalities may use only one mill rate for property within its boundaries. In order to raise additional tax revenue from the commercial sector, some municipalities levy a business tax. This form of taxation could be eliminated if municipalities had the variable mill rate option.

Should variable mill rates be approved by the provincial government, the Task Force suggests that the adoption of such a system be optional on the part of each individual municipality.

The Task Force suggests that the concept of variable mill rates be given consideration by the LGFC.

Conclusion

The assessment/taxation issue is extremely complex, sensitive and poorly understood by many. This section has outlined some of the more commonly raised observations, concerns, and possible solutions.

The Task Force feels strongly that the current assessment system should be re-evaluated thoroughly as soon as possible.

MUNICIPAL STRUCTURE

During its deliberations, the Task Force was frequently reminded of the large number of municipal governments in rural Saskatchewan - 299 rural municipalities and about 494 urban municipalities in the main study area. Individuals and groups with whom the Task Force consulted had varying opinions about the current structure of municipal government. Some indicated that the large number of small municipal governments was desirable because it made possible a close "grassroots" relationship between councils and voters, provided many opportunities for individuals to participate actively in the democratic process, and provided a large resource of elected leaders. In some small urban and rural municipalities, there is one member of council for every 90 - 100 residents, while the comparable figure is one member for every 16,000 or so residents in a city such as Regina. Clearly, there is a very high degree of representative democracy in rural Saskatchewan.

Those questioning the need for such a large number of municipal governments cited the problems of lack of economies of scale and inadequate financial base, which prevent some small governments from providing an adequate range of services and facilities. They pointed to the relatively high utilization of a number of government programs which already recognize that some services - such as recreation facilities, fire protection service and ambulance service - can be more effectively provided on an intermunicipal basis. Further, this group considered that the current system of municipal government was a significant hindrance to further economic development in some rural areas. This conclusion was supported by the observation that in trying to implement major economic development projects in rural areas, governments and entrepreneurs face an overwhelming task in trying to communicate and co-ordinate with a large number of local government units in the vicinity of a project. The difficulty of arriving at equitable property tax sharing agreements between the many urban and rural municipalities affected by a large development project was cited as an example of the problem involved.

The Task Force concluded that from the viewpoint of enhancing rural development, a strong case could be made for encouraging greater intermunicipal co-operation. This appears to be especially important for economic and social planning for communities which include both rural and small urban local governments. It is also important regarding the adequate provision of such things as office facilities, fire protection, police protection and road building and maintenance equipment. Provincial funding assistance to encourage more intermunicipal co-operation should be considered.

Elsewhere in this report the Task Force has proposed the establishment of area development corporations as a vehicle for existing municipalities to work together to further economic development at the local level. The Task Force believes that rural and small urban municipalities who co-operate to establish area development corporations should be in a better position to enhance their economic future than those municipalities who continue to go it alone. An ADC would provide municipalities with a full-time economic development professional resident in the area, and should provide a stronger relationship between existing government assistance programs and the economic opportunities in the area. Senior governments and entrepreneurs would also benefit from having a locally-based economic development group to communicate with.

Later in this section, the Task Force has recommended a greater emphasis on intermunicipal co-operation in land use planning matters through more use of district planning commissions.

While many of the individuals and groups interviewed by the Task Force spoke about the need for change in local government structure, there were also some who indicated a preference for the status quo. It seemed apparent to the Task Force that any action to deal with this sensitive issue must be both cautious and open, and be carried out with a high degree of participation from and co-operation with the organizations directly concerned.

LEGISLATION

The Task Force noted that there is a wide variety of legislation which affects rural Saskatchewan. The key pieces of legislation directly relating to municipalities are The Planning and Development Act, The Urban Municipality Act, and The Rural Municipality Act. Over the past three years, the Planning Act and the Urban Act have been rewritten in order to streamline municipal procedures, to clarify the nature and extent of provincial interest in municipal matters, and to increase local autonomy. Before the Urban Act was rewritten, an Urban Law Review Committee was appointed to study and recommend on the matter.

While this new legislation has undoubtedly benefited rural Saskatchewan, the Task Force noted that The Rural Municipality Act has not been rewritten and updated. As well, there are a number of other statutes that are the sole responsibility of the Minister of Rural Development, such as The Grain Charges Limitation Act, The Municipalities Relief and Agricultural Aid Act, and The Municipalities Seed Grain and Supply Act. The Task Force recommends that efforts should be made to update, streamline and consolidate this rural legislation. Since this would be a major, complex undertaking, it is recommended that a Rural Law Review Committee be appointed to assist with this task. Such a review committee would need the support of an adequate research program.

During its deliberations, the Task Force found more variation among rural municipalities than is sometimes recognized. For example, a large rural municipality in close proximity to a city often has different characteristics and problems or opportunities than a small, sparsely populated rural municipality far removed from a large urban centre. Recreation and resort-oriented rural municipalities also have unique needs and opportunities. Because there is such a wide range of types of municipalities with different needs and problems, it appears important for these differing types of rural municipalities to have the legislative tools they need to adequately discharge their responsibilities.

In view of the above, the Task Force recommends that The Rural Municipality Act and other legislation relating to rural municipalities be rewritten and, where appropriate, consolidated. This should be undertaken in close consultation with key rural interest groups such as the SARM and RMAA. This should result in superior legislation because the interest groups would provide "front line" knowledge of municipal operations and the Province would provide an understanding of the larger economic and social policy issues impinging on all municipalities. Since the need to update and consolidate the legislation is fairly urgent, the Task Force recommends that the review and rewriting be undertaken as soon as possible.

DISTRICT LAND USE PLANNING

In its review of rural development-related initiatives, the Task Force found that many jurisdictions - including Alberta and Manitoba - have put considerable provincial effort and funding into intermunicipal land use planning. In Saskatchewan, The Planning and Development Act provides for, but does not require, the establishment of district planning commissions (DPCs) by two or more municipalities. The basic purpose of a DPC is to prepare a development plan for the area to provide policy guidance to the participating municipalities, primarily in the use and development of land.

The Act provides that a development plan for a planning district be prepared and adopted within two years of the formation of a DPC. The Act further provides that upon adoption of the plan, each of the municipalities in the DPC adopt a zoning bylaw consistent with the plan as the major means of implementing the plan.

At present, there are 17 DPCs in the province, although less than half of them are active. For the most part, those that are active are located in the vicinity of major urban centres - usually cities - where the growth of the urban area is putting development pressure on the rural municipality to accommodate urban-oriented uses such as residential, industrial, commercial, recreational and extractive activities. A DPC provides a forum for discussion and airing of views on land use issues around the urban area, as well as legal vehicles (the development plan and related zoning bylaws) to resolve land use conflicts and to lay out the pattern of future development. Several "Special Planning Areas" or SPAs were also established along the Qu'Appelle Valley in the 1970s. These SPAs - a form of district planning - are in the process of being disbanded, but the municipalities involved will have the option to retain them as vehicles for district planning.

The Role of District Planning in a Rural Development Strategy

Despite the wide-ranging content of district development plans as provided for in The Planning and Development Act, the Task Force understands that the plans deal primarily with the allocation and control of land use and not with the larger issues of economic development. Land use issues are usually of a fairly localized interest. As a result, even though the Act places no limitations on the number of municipalities that can join together to form a DPC, the tendency is for DPCs to be composed of a small number of municipalities in a restricted geographic area.

Because land use control is a function which has in large part been mandated to municipal governments, the district planning process involves primarily municipal elected and appointed officials. While this is appropriate for land use issues, the Task Force believes the wider issues of social and economic development in rural areas require the participation of a wider range of interest groups than rural and small urban councils alone.

Despite these limitations, the Task Force concluded that there are three main reasons why an increased emphasis on district planning is important in the rural development context:

- The formal act of intermunicipal co-operation required in establishing a DPC is in itself an important component in the larger economic development process.
- Urban and rural municipalities need to work together to ensure that the necessary physical expansion of rural service centres occurs in a manner acceptable to the agricultural community that surrounds most of these centres.
- Much of the material assembled in the preparation of a district plan will be of use in understanding the area and in identifying economic development opportunities.

In view of the potential benefits of greater use of district planning commissions, the Task Force recommends that the Province develop a funding program to support district planning. Financial support is needed to assist the establishment and operation of DPCs.

The most costly and time-consuming aspect of district planning is the preparation of a district plan, usually carried out by a consultant. If the Province is to support district planning, it will need to provide some financial assistance for municipalities to co-operate in preparing plans. Implementation and administration of a plan occurs primarily through the zoning bylaws of each municipality involved in a district. The need for continuing provincial financial assistance after plan preparation is less apparent to the Task Force.

While detailed program design should be the responsibility of the Departments of Rural Development and Urban Affairs, the Task Force believes that the following general principles should be kept in mind:

- Provincial funding should be limited to "front end" cost sharing for the preparation of district plans.
- Ongoing administrative costs should be the responsibility of participating municipalities.
- In designing a program, provision should be made for ensuring that provincial assistance to existing DPCs is rationalized to be consistent with assistance to new DPCs.

- Consideration should be given to providing a higher percentage of provincial assistance to those DPCs that do not include cities. This suggestion is based on the premise that cities have financial and personnel resources that towns, villages and rural municipalities do not.

RECOMMENDATIONS

Regarding the role of urban and municipal governments in the process of rural economic development, the Task Force recommends that the Province should do the following:

1. Develop a funding program to encourage an increased use of district planning commissions.
2. Work with SUMA and SARM to develop and present a case for increased federal financial assistance to small urban and rural municipalities for such things as basic infrastructure and economic development.
3. Provide financial assistance to rural and small urban (with population of less than 5,000) municipalities to encourage greater intermunicipal co-operation for the provision of such services as local government office facilities, fire protection, police protection and road building and maintenance equipment.
4. Give consideration to providing municipalities with the option of using variable mill rates to provide greater development flexibility. This should not be viewed as an approach to overcoming basic assessment deficiencies.
5. Place a high priority on the development and implementation of a new rural assessment system. The primary objective of such a new system should be to remove the current inequities which are a definite deterrent to economic and social development in rural Saskatchewan.
6. In a new system of assessment, give consideration to assessing and taxing all principal rural residences, regardless of ownership classification. It is recommended that this also be carefully considered by the LGFC.
7. Establish a Rural Law Review Committee to help rewrite, update and consolidate statutes relating to Saskatchewan's rural municipalities, in consultation with SARM and RMAA.

CHAPTER XIII

EXPANDED MANDATE FOR THE DEPARTMENT OF RURAL DEVELOPMENT

From 1909 to 1956, the provision of services to Saskatchewan's rural and urban municipalities was under the mandate of the Department of Municipal Affairs. The early records of Municipal Affairs indicate that the department provided a wide range of services through local rural and urban councils, including education, health, social services, police and fire protection, and the traditional and ongoing requirements for infrastructure (roads, streets, water and sewer).

At the request of the SARM, and in response to municipal road conditions which prompted the Grid Road Program, the Municipal Road Assistance Authority (MRAA) was created in 1956. The MRAA was concerned mainly with the design, construction and funding of the Grid Road Program until 1966 when the Province announced the Main Farm Access Program. Six districts were established to deliver road programming through offices in Weyburn, Swift Current, Yorkton, Saskatoon, Prince Albert and North Battleford.

In 1974 the Municipal Road Surfacing Commission began deliberations which led to the Primary Grid Road Program in 1977. The MRAA became part of the Department of Municipal Affairs in 1976.

The evolution of specialized services in larger urban municipalities (such as transit and core revitalization), the predominant desire of RMs to limit their interests to transportation-related items, and the population shift away from rural areas, led to the creation of two separate divisions of Municipal Affairs in 1977. Both the SARM and SUMA had lobbied for separate departments to allow more specialized revenue sharing, service provision and legislation.

The department was officially split into Urban and Rural Affairs in 1979, with the urban unit given the mandate to serve the needs of more than 500 cities, towns and villages. Rural Affairs' mandate was to serve the requirements of the 299 rural municipalities. In 1983, as part of an overall reorganization of government functions, the Department of Rural Affairs was renamed Rural Development. In addition to the new name, the Department was given an expanded mandate - to include a greater emphasis on the economic and social development of rural Saskatchewan.

The Department of Rural Development is structured to emphasize decentralized service provision through its regional offices. The field staff are "in tune" with the issues and concerns of rural residents through ongoing daily contact. This structure has facilitated the free flow of information from the "grassroots" to the senior management level and has created a "pulse" for rural issues at all levels of the Department. The branches of the Department and their current functions are as follows:

- Administration - executive offices and internal administrative functions.
- Bridge Services - financial and technical assistance for construction and maintenance of bridges.
- Community Planning - assistance to councils in planning for the utilization of the resources of the municipality.
- Drafting - preparation of all types of maps and charts used by the Department and RMs.
- Ferry Services - operation of 15 ferry crossings.
- Municipal Management and Finance - consultative and review services in municipal law, administration and accounting.
- Municipal Employees Superannuation - administration of the pension fund of most urban and rural municipal and school division employees.
- Planning and Research - road designations and planning, unconditional grant calculations, traffic safety and departmental research projects.
- Road Services - co-ordination and administration of engineering assistance for designated municipal roads.

PROBLEMS

Lack of Intermunicipal Co-operation in Economic Development

The Task Force consistently heard a major complaint during its consultations about the limited intermunicipal co-operation in developing an area or community approach to economic and social development in Saskatchewan. This has resulted from several factors:

- No single provincial agency provides leadership or direction for the economic and social programming of rural Saskatchewan.
- The existence of two departments of municipal affairs encourages and promotes the separation of city, small urban and agricultural interests.
- There are conflicts between SUMA and SARM, who both appear to be seeking superiority of influence with the Province.

- There has not been enough formal intercommunity and intermunicipal co-operation in regional development.
- There is a strong desire of small communities to retain a "separate" identity from their larger neighbours or surrounding municipalities.
- The interests of rural and urban councils appear to be quite different, with the emphasis in each case on their own local needs.

The famous saying, "United We Stand, Divided We Fall" might also be appropriate in many areas of rural Saskatchewan. Economies of size, declining populations and increasing demands for more sophisticated municipal services may force many smaller urban and rural municipalities into coalitions or co-operative arrangements for viability and survival.

The Task Force concluded that incentives should be provided to encourage intermunicipal co-operation to ensure the survival of as many segments of our rural communities as possible.

Emphasis on Roads

Rural municipalities spend about 70 percent of their budgets on roads and bridges. This, together with the basic nine-township structure of most RMs, has resulted in a major emphasis on the road system. The Department of Rural Development has provided assistance to the RMs in this emphasis, as outlined above.

The Department has enjoyed a strong, positive relationship with its clientele since it was established in 1979. All the programs in which the Department provides either technical and/or financial assistance are based upon local, autonomous decisions. This approach has resulted in an excellent rapport between the rural councils and departmental personnel.

All existing programs are reactive to decisions already made at the local level. Successful implementation supports local authority and autonomy.

This is most evident in the Main Farm Access Road Program, but is also the case with most of the road programs the Department offers to RMs. The Department has successfully assisted RMs to build roads, leading to more demand for more roads and road programs, almost to the exclusion of all other types of municipal activity in many RMs.

The Task Force recognizes the vital role that good roads have played, and will continue to play, in the economic and social well-being of rural Saskatchewan. Good roads are a major factor in the generation of economic development, but the Task Force concluded that the rural councils must also be concerned with broader socioeconomic issues if rural Saskatchewan is to achieve more development and prosperity.

The Task Force concluded that it would be appropriate for the Department of Rural Development to become more proactive in the programming of economic and social development activities to augment and round out the existing policies and programs.

Overlaps and Gaps

The delivery of government services to rural residents frequently suffers from the "all or nothing" syndrome - either there are too many fragmented attempts at programming or virtually none at all.

One example is provided by the provincial approach to municipal governments. The Departments of Rural Development and Urban Affairs both provide community planning, municipal management and financial services, and revenue sharing programs to their clientele. This often results in duplication of effort, and it is likely that cost savings and service improvements could be realized from an amalgamation of some or all of the units involved. While this "over-delivery" continues, neither department has developed an ongoing program which would assist rural local governments in their attempts to become more economically self-sufficient through expansion of their taxation base.

Of equal significance are the "urban" versus "rural" attitudes that are fostered by segregation of the urban centres from their surrounding rural municipalities when provincial programming is developed and delivered. This has resulted in conflicts over land resources and related development proposals which should be to the benefit of all parties concerned. Furthermore, economic development in rural Saskatchewan will need to involve both rural and small urban local governments to be effective. To achieve a closer working relationship between these local governments is a major challenge for both the local governments involved and the provincial government. The Task Force observed that one approach which should be considered to help achieve a stronger rural structure would be to establish a Department of City Affairs to assist all of the cities in the province, and a Department of Rural Development to assist all of the urban centres of less than city status and the rural municipalities. This should result in a more logical framework for policy and program development, and would be more supportive of rural economic and social development.

The Task Force has concluded that while "over-delivery" exists in the provincial approach to community planning and management services to municipalities, a gap is evident in the services offered to small urban units.

Programs and funding are applied universally across the province to all centres regardless of population. The Task Force concluded that this has led to discrimination in some instances against rural areas which most required the assistance. For example, a per capita grant of $100 may net only $10,000 to a small village, yet it provides $100,000 to a town with a population of 1,000, even though both may have a similar need and a similar project cost.

This has placed many small centres at a distinct disadvantage when trying to retain their existing population and taxation bases, and has led to the alienation evident at the February 1984 conference of SCRAD which referred to these communities as the "forgotten 400."

Engineering services to small urbans were provided by Municipal Affairs until the department was split. This service should be provided again by Rural Development's Road Services Branch as an important provincial input into rural economic development. The regionalized Road Services Branch with its district engineering staff is in a strong position to assist both small urbans and rural municipalities with their engineering-related development undertakings. The district engineers already provide such advisory services to RMs as assistance in land negotiations, drainage problems, road construction and maintenance, and signing requirements on roads not in the designated system.

Rural conferences held in Saskatchewan over the last two decades have consistently voiced the need of rural residents for better access to government programs. Despite the proliferation of brochures and pamphlets on a wide range of government programs, rural residents have expressed the need for a local co-ordinator or facilitator who could sort out the many federal and provincial assistance plans on their behalf. The Task Force believes the establishment of Area Development Corporations with a local development officer would help fulfill this requirement.

The Task Force closely examined the extent and nature of overlap between the Department of Highways and the Department of Rural Development to determine the benefits and costs of an amalgamated road services department within government. It was concluded that, while surface transportation policy lacks sufficient co-ordination under the present system, there is little, if any, net benefit to be achieved through consolidation of the two road agencies. The programs provided are so dissimilar in nature that one could easily anticipate a major reduction in the level of transportation initiatives for rural residents if amalgamation was undertaken.

The Task Force concluded that many desired and needed services "fall through the cracks" of government jurisdictions, due to the lack of a "rural" department geared to the specific needs of Saskatchewan's rural residents. Examples of programs and responsibilities which might be considered for transfer to the Department of Rural Development, or at least reorganized within existing jurisdictions to minimize the current "hit-and-miss" approach, are itemized below.

Saskatchewan Assessment Authority

The Task Force repeatedly heard requests to have all or part of the Saskatchewan Assessment Authority under the jurisdiction of Rural Development. The existing structure appears to lack co-ordination between rural residents and the administration. Reorganization of this unit should be a high priority for the Government, as many of the respondents to the Task Force indicated current assessment practices to be a severe impediment to economic growth in rural Saskatchewan.

Agriculture Implements Act

Implement dealerships are one of the most important service delivery units within rural communities. Almost without exception, when an implement dealership closes, the town suffers a severe economic setback which leads to decline.

The Saskatchewan-Manitoba Implement Dealers Association (SMIDA) has submitted several briefs and letters to the Government of Saskatchewan requesting assistance to enable the retention of as many dealers as is economically feasible within the province. They have also indicated that responsibility for their organization would be more appropriately placed with Rural Development.

The Task Force recommends further government action to assist Saskatchewan's implement dealers in their efforts to serve rural residents.

Pest Control Act and Rat Eradication Program

Pest control in Saskatchewan is delivered through the municipalities under the direction of the Saskatchewan Department of Agriculture.

Various ad hoc programs have been devised from time to time to eliminate or cope with midge, grasshoppers, beavers, skunks and other pest infestations.

A very serious pest problem is the Norway Rat, both from economic and health/safety viewpoints. The Rat Eradication Program has not received the financial and technical support required to eradicate or in some cases even control serious outbreaks.

Cost estimates of damage attributable to rats vary, but generally are agreed to approximate $20 million annually. Most seriously affected are small urban communities who must wage a constant battle in garbage dumps, near seed and feed supply depots, and in grain storage facilities.

The health problems associated with the rat need no elaboration here, as they are well documented.

The Task Force recommends immediate action by the Government to develop an eradication program. Elimination of the Norway Rat would result in substantial net returns to all residents of Saskatchewan.

Regional Parks Program

The Department of Parks and Renewable Resources provides technical and financial assistance to local governments for the operation of regional parks throughout the province. This program has a key relationship to the new mandate for Rural Development because:

- recreational facilities should be developed and co-ordinated in conjunction with the land use and economic development plans of local governments, and
- these units are operated by local boards containing representatives of municipal councils, making a logical extension of the Department's clientele services.

In light of the recommendations contained in several parts of this report suggesting the desirability of intermunicipal co-operation, strong support for local autonomy and the undisputed need for regional overviews to economic and social programming, the Task Force recommends that serious consideration should be given to expanding Rural Development's mandate to include service provision to these essential recreational facilities.

Policy and Planning Capabilities

The Department now has a four-person Planning and Research Branch. Current responsibilities include road designations, traffic volume counts, traffic safety, and the calculation and supervision of the unconditional revenue sharing program. This unit has only minimal capabilities for broader research and policy planning due to the ongoing demands of present duties.

The Task Force recommends that the existing Planning and Research unit should become a part of the Department's Road Services Branch to more accurately reflect their purpose and function.

The Department currently has no policy formulation group nor original research capability attached to senior management. This is a severe impediment to the development and co-ordination of new initiatives and to the improvement of existing programs. Therefore, the Task Force recommends the establishment of a Policy Development, Planning and Research Branch within the Department. This unit would enable Rural

Development to provide its clientele with responsive, timely services. The recent move by SARM to establish a similar unit indicates the strong desire of rural residents to have adequate research to support policy and program undertakings.

New initiatives and programs will have limited chance for success in Rural Development if such support cannot be provided to the Department's senior management.

CONCLUSIONS

The Task Force concluded that a focused approach by the Province to the concept of enhanced economic and social development in rural areas would be beneficial to all of Saskatchewan.

This can best be accomplished by expanding the mandate of an existing department to encompass the socioeconomic objectives of the provincial government regarding rural Saskatchewan. The Department of Rural Development is a strong candidate to undertake this new mandate because:

- It has a history of responsive, timely service provision based on local autonomous decisions.
- It has an excellent rapport with the 299 rural municipalities, which will be important participants in any new program proposals.
- Many programs offered can be exclusive of direct city participation and can be focused entirely on rural needs.
- It has a strategic, decentralized structure which can be utilized as a base for new rural programming.

RECOMMENDATIONS

The Task Force recommends that:

1. The mandate of the Department of Rural Development be expanded through the establishment of a Community Development Branch responsible for the formation of Area Development Corporations and Community Development Corporations.
2. The Department of Rural Development be expanded to contain a policy research and program development and co-ordination unit.

3. An interdepartmental committee should be established to consider new, more efficient methods of delivery of provincial services to small urban and rural municipalities and to recommend possible departmental restructuring. This study should include consideration of the merits of reorganizing the Department of Urban Affairs so that it would deal only with the 12 cities of the province, and transferring the policies and programs related to the urban centres of less than city status to a newly restructured Department of Rural Development which would also deal with the 299 rural municipalities. The Task Force recognizes the controversial nature of this recommendation, and suggests the committee should include members from Rural Development and Urban Affairs, together with representatives from SARM, SUMA, the Rural Municipal Administrators Association, the Urban Municipal Administrators' Association and at least two members from the public at large, to ensure adequate public input into the process.

4. The Department of Rural Development should provide engineering services to all towns and villages, in a manner similar to the service provision which existed prior to 1979.

5. New provincial programs for rural Saskatchewan should encourage intermunicipal co-operation wherever possible, but not to the exclusion of those units which wish to remain autonomous.

CHAPTER XIV

CONCLUSIONS AND SUMMARY OF PRINCIPAL RECOMMENDATIONS

The Task Force concluded that the Province has the potential to greatly expand the level of industrial and commercial activity in rural Saskatchewan. The opportunity for growth and expansion in value-added processing of agricultural products appears to hold great promise for developmental projects of significant impact. In addition, there are many other opportunities which need to be explored and exploited. This appears to be the case, for example, in further development of Saskatchewan's primary agriculture, secondary industry, water resources, service industry, tourism, forestry, and cottage industries. This report discusses actions which should be taken to encourage and assist more development of these opportunities.

Saskatchewan will continue to be heavily dependent on export markets for many of its major products. Tough competition in our traditional world markets has resulted in depressed commodity prices and this will likely continue at least in the short run.

These factors suggest the need for new and innovative approaches by producers, manufacturers, export agencies, and the three levels of government, to assure a level of profitability which can sustain growth and viability of the many sectors of the provincial economy.

The Task Force concluded that there are major impediments which need to be removed before rural Saskatchewan, and in fact the entire provincial economy, can experience the significant level of long-term stability and continued economic growth that would result from rural revitalization.

In the summary of principal recommendations below, the bracketed notations refer to detailed related recommendations contained in this report (page numbers and numbers of recommendations). In addition, there are many other recommendations which should be given careful consideration.

Transportation

Saskatchewan, as a major exporter, relies heavily on efficient and effective transportation of goods and products both in and beyond its provincial boundaries. The Task Force concluded that the current transportation system and provincial co-ordination of policy towards transportation could be greatly improved. (Page 21; 1: Pages 190 and 191; 2, 3, 4, 5).

The payment of the Crow Rate benefit to either the railways or producers alone would, in the opinion of the Task Force, be a definite deterrent to the future growth of a sound, diversified rural economy. The Task Force recommends that the Crow benefits should be paid equally to railways, producers and the Province, with the Province's one-third share reinvested in municipal roads, highways and other transportation infrastructure needed to replace obsolete or abandoned rail facilities. (Page 21; 1: Page 61; 7: Page 191; 5, 7, 8).

The Task Force recommends that the highest priority should be placed upon the negotiation and development of new transportation policies, programs and initiatives which would integrate the needs of all sectors of the provincial economy. (Page 21; 1, 2: Pages 190 and 191; 2 through 8).

The Province should provide funding to the Department of Rural Development for a new program of upgrading heavy volume municipal roads. (Page 190; 1).

Rural Development Commitment and Thrusts

The Task Force recommends the immediate implementation of new program thrusts by the Department of Rural Development which would encourage and assist the formation of Area and Community Development Corporations. (Pages 144 and 145; 1 through 9: Page 298; 1).

The Task Force concluded that the expansion of the research and policy planning capabilities within the Department of Rural Development is vital to the success of these and other related new programs. (Page 298; 2).

The Task Force recommends immediate implementation of the suggested policy and program thrusts which would encourage local initiative and intermunicipal co-operation, recognizing these factors as the basic elements of a new rural development strategy. (Pages 144 and 145; 1 through 9: Page 290; 1 through 3: Page 299; 3 through 5).

The Task Force concluded that current assessment practices result in severe impediments to economic growth in rural Saskatchewan, and recommends the Province place a high priority on the development and implementation of a new rural assessment system. (Page 113; 1: Page 290; 4 through 7).

Agriculture

The Task Force concluded that agriculture at all levels could be developed to make a much greater contribution to the provincial economy, and that it will remain the primary engine which will drive the provincial economy in the foreseeable future.

The continued reliance and emphasis on cereal production for export in unprocessed form, especially wheat, and the neglect of other opportunities in agriculture is viewed by the Task Force as a fundamental problem. It appears that this is especially serious because very soon Saskatchewan may be almost totally reliant on one importer, the Soviet Union, to purchase hard red spring wheat.

The Task Force concluded that continued reliance on a single main commodity, wheat, would almost certainly be disastrous for not only future rural development, but also to the provincial and national economies.

The Task Force concluded that the Province and the federal government must show leadership to our producers, and this may require entirely new approaches to traditional problems. (Page 21; 2, 4: Page 61; 6, 7).

The Task Force recommends a major in-depth review of the entire agricultural industry in Saskatchewan. This study would provide the basis for future government policy and program thrusts which would encourage diversification and a more stable agricultural economy during the next decade or so. (Page 21; 1, 3: Page 60; 1).

The Task Force recognized a major need for more targeted research and development programs which would assist producers to meet future challenges, and recommends that the Province provide substantial directed funding for research projects in food processing, horticultural development, production efficiency, soil conservation, and water management. (Pages 60 and 61; 2 through 6: Page 107; 1: Page 131: Page 165; 1 through 6: Pages 240 and 241; 1 through 5).

The Province should orient its farm policies and programs with an emphasis on the development of viable farm units and achievement of adequate farm incomes by emphasizing assistance to expanding farm size by means other than adding additional land, and by providing more assistance to eligible part-time farmers. (Page 68: Page 77).

Another major agricultural development opportunity is in northern Saskatchewan. The Task Force recommends that the Province proceed with this development as soon as possible. (Page 82).

Major Development Corporations

The Task Force concluded that Saskatchewan's rural residents have substantial capital and human resources which are largely underutilized. The establishment of one or more Provincial Development Corporations would promote the investment of local capital into provincial projects, thus providing the employment and entrepreneurial opportunities so badly needed in rural areas.

The Task Force strongly recommends provincial implementation of at least one Major Development Corporation. (Page 107; 3).

Trade

The Task Force concluded that the removal of trade barriers and tariffs would provide Saskatchewan producers and prospective manufacturing and processing firms with the ability to capitalize on the comparative advantages and capabilities in the province.

The Task Force therefore urges the Province to strongly pursue free trade policies, especially with the USA. The removal of artificial control mechanisms through national marketing agencies and policies would further enhance the provincial economy by allowing natural advantages to determine production locations. (Page 21; 2, 4: Page 61; 6).

Utilization of Provincial Land Base

One of Saskatchewan's most valuable resources is its land base. The province has the largest amount of Canada's classes 1 to 4 land suitable for intensified agricultural production. In addition, the province has millions of acres of marginal land for grazing, and millions of acres of undeveloped forest land suitable for recreation and commercial timber operations.

The Task Force is concerned that much of this valuable land resource is being mined rather than farmed, mostly as the result of federal and provincial policies which encourage continuing increased productivity as a remedy to the cost-price squeeze and a source of foreign exchange.

The Task Force recommends that both the provincial and federal governments should become involved in soil conservation programs to protect the future productivity of this precious resource. (Pages 60 and 61; 2, 3: Page 209; 5, 6).

The Task Force recommends that provincial land use guidelines and new Crown land management policies should be formulated to encourage rural development. (Page 82: Pages 208 and 209; 1 through 4).

Economic Development Assistance

There are several key areas in which the Province should provide assistance to economic development in rural areas. These include the development of a Food Technology Council, a more co-ordinated provincial approach and structure to encourage and assist in industrial development, assistance with the development of industrial parks, assistance to the farm machinery industry, and a financial assistance program for rural enterprises. (Pages 107 and 108; 1 through 4: Page 113; 1, 2).

Tourism

Tourism could be developed further to make a more significant impact on rural development. This would require a strong tourism commitment, more financial assistance (which should be provided on the basis of a positive benefit/cost analysis result), the development of a program to recognize community enterprise and achievement, and assistance to selected tourism activities. (Pages 122 and 123; 1 through 7).

Other Recommendations

The remaining recommendations which have been omitted from this summary should not be considered inconsequential; they are viewed by the Task Force as very positive measures with excellent potential for improving the economic and social well-being of all Saskatchewan. For example, there are significant development potentials in the forestry and fishery industries These are discussed briefly in Chapter IV. Very important also are the recommendations regarding the provincial investment in research and development. It appears quite clear that the Province will need to invest more resources in R & D if it is to achieve a higher level of economic development (see Chapter VI).

Chapter IX indicates that Saskatchewan has a major water resource which needs to be more fully developed, to the extent that careful study taking into account all benefits and costs indicates a positive outcome.

Although Chapter X on "Quality of Life" doesn't contain many specific recommendations, it indicates important directions which the Province should seriously take into account as it proceeds with a new emphasis on rural economic and social development. This applies also to the important area of communications which is dealt with in Chapter XI.

The environmental and aesthetic considerations, also discussed in Chapter XI, could have a major impact on both the social and economic well-being of rural Saskatchewan.

To enable the Department of Rural Development to carry out its present mandate more effectively, and to undertake the recommended additional responsibilities successfully, the Government of Saskatchewan should give careful consideration to the recommendations at the end of Chapter XIII. This is a basic requirement for successful implementation of many of the key elements identified in this Strategy for Rural Development.

Chapter XV provides a complete list of all the recommendations in this report. They are listed consecutively in the same order as they appear in the successive chapters.

It is the hope of the Task Force that this report will make a significant contribution in the deliberations of the Government of Saskatchewan as it considers its future policies and programs for the development of the rural economy of this province. We also urge the people of Saskatchewan to read this entire report and to consider each suggestion as a possible link in a new chain of events which could reshape and enhance the well-being of rural Saskatchewan.

CHAPTER XV

RECOMMENDATIONS

1. The Government of Saskatchewan should undertake an in-depth review and study of the entire ground transportation system in the province, especially as it relates to the needs of a modern grain handling system and the economic development of the entire province. Emphasis should be given to developing a system that would integrate the needs of all the basic industries, including agriculture, resource extraction, lumbering, manufacturing, and tourism. The study should include consideration of how to maximize the potential benefits of the Crow benefit funds. Related recommendations in the section on Primary Agriculture and the chapter on Roads should be taken into account in this recommended review and study. These recommendations suggest strongly that the Crow benefit funds should be provided to each of the three major potential recipients identified - possibly on the basis of one-third paid to each annually.

2. The Government of Saskatchewan should work closely with the Government of Canada to develop a new and more equitable national feed grains policy.

3. The major in-depth review of the agriculture industry recommended in Chapter IV should include consideration of possible ways to reduce Saskatchewan's heavy dependence on wheat production and exports.

4. The Government of Saskatchewan should continue to press for a reduction in Canadian restrictions on trade as they relate to the well-being and further development of this province.

5. A major review of the entire agricultural industry in Saskatchewan should be undertaken to help determine the direction of policies and programs that should be pursued during the next decade or so. This should be undertaken in the context of seeking a stronger, more diversified agriculture, and achieving desired rural development objectives.

6. The Government of Saskatchewan should provide more funds for research and development related to the provincial agricultural industry. Such additional funding should be provided to enhance the research and development capabilities of the Saskatchewan Department of Agriculture and such provincial research institutions as the College of Agriculture and the Saskatchewan Research Council. Increased research should be undertaken as soon as possible regarding such areas as the following:

    - the economic and agronomic aspects of continuous cropping, minimum tillage, or zero till methods,

- the economic and production considerations of working toward greater self-sufficiency in meeting the province's needs for horticultural products (including vegetables, fruits and ornamentals),
- the technological and economic aspects of confinement livestock production,
- the development of low-cost feeds and use of crop residues,
- the development of a government-assisted forage expansion program to support an expanded cattle industry and provide a major component of a soil conservation program, and
- farm business management.

7. Extension materials should be prepared pertaining to the economic and technical aspects of such development opportunities as improved use of pasture and hayland, honey production, livestock production, special crops, horticultural crops, inter-farm business arrangements to facilitate greater use of livestock resources, and the establishment of agricultural livestock parks.

8. The Government of Saskatchewan should establish a long-term, clearly targeted program of irrigation development. The program should recognize the options for individual farmers to develop supplementary as well as intensive irrigation schemes, and also group development of irrigation projects. This should be based on a comprehensive evaluation of all benefits and costs involved.

9. The Province should consider the establishment of an irrigation research centre to undertake and co-ordinate irrigation related research, both at the centre and with farmer co-operators.

10. Since much of the potential for further development of Saskatchewan agriculture is dependent on finding additional markets, the Government of Saskatchewan should undertake a concerted effort to locate and develop expanded export markets for such products as pork, specialty crops (processed or unprocessed), beef, honey, starch and edible oils.

11. The Government of Saskatchewan should urge the Government of Canada to pay at least one-third of the annual Crow Benefit funds to primary producers, to remove a major handicap of the Saskatchewan livestock industry and to help achieve a more diversified economy in Saskatchewan. This recommendation should be considered in combination with a related recommendation in the chapter on Roads.

12. The Government of Saskatchewan should orient its farm policies and programs with an emphasis on the development of viable farm units; and the achievement of adequate farm incomes, and amenities and services in rural areas, by emphasizing assistance to small and beginning farm operators, and to farm operators who would like to increase their farming operations and income by means other than adding additional land.

13. The Government of Saskatchewan should assist part-time farmers in establishing farms by basing eligibility for public programs, including credit and other financial assistance programs, on the needs of the farm unit being developed rather than whether the operator is a part-time or full-time farmer. The Task Force recommends that eligibility for public programs contain restrictions with respect to the applicant's net worth, amount of off-farm income and commitment to the farming enterprise in terms of physical and managerial involvement, and possible residence on the farm being assisted. This could have a major, positive effect on developing and maintaining a strong farming sector.

14. The Government of Saskatchewan should urge the Government of Canada to eliminate the income tax provisions which discriminate against part-time operators.

15. The Government of Saskatchewan should proceed with the development of more agricultural activities in northern areas like the Saskatchewan River Delta and Green Lake, to provide a stronger base for both the economic and social development in these areas.

16. The Government of Saskatchewan should establish a Food Technology Council to provide leadership, guidance and assistance (research, development, technology transfer and technical help) for further development of the food processing industry in Saskatchewan. This should be supplemented with direct government assistance to the industry in the form of:

    - opportunity seminars for industry participants, and for organizations such as community development corporations and community economic development committees,

    - information packages for use in the educational system and the business community, stressing the importance of domestic and export marketing of Saskatchewan products,

    - market feasibility studies by the Department of Economic Development and Trade, and

    - support of a Rural Option Emphasis which would encourage at least some of the industrial development to take place in rural communities.

17. The Government should re-examine its total rural development effort and its current organizational structure which distributes responsibility for rural development among several departments and agencies and dissipates the overall thrust accordingly.

18. The Government of Saskatchewan should consider establishing a major development/investment corporation which could acquire through existing resources and share subscription a large pool of investment capital. The purpose of such a corporation would be to make investments in suitable major Saskatchewan enterprises such as fertilizer production or edible oil production, and enter into joint ventures or equity participation with national and multinational companies for projects mainly in, but not confined to, Saskatchewan.

19. The needs of rural Saskatchewan communities for assistance in developing industrial parks and the role of SEDCO in such developments should be given further consideration.

20. The Department of Economic Development and Trade should provide more assistance to the farm machinery industry to help it overcome its problems and undertake additional, new opportunities. Such assistance should include research and development incentives, financial assistance for market feasibility studies, and advisory services regarding structural and organizational aspects of the industry.

21. A financial assistance program for rural enterprises should be developed to remove the financial disadvantages often experienced by rural businesses when constructing new or expanded facilities, or establishing new businesses.

22. Continued strong support should be given to the Community Economic Development Program.

23. The provincial government should establish tourism as a key component of rural development in its overall planning and development for Saskatchewan. This means the Province should be prepared to allocate substantial sums of money to tourism development in rural areas. This should include consideration of means to encourage intermunicipal government co-operation for the development of major tourist attractions and the marketing of such developments.

24. The Province should develop programs to provide encouragement and technical assistance to communities which may wish to develop a theme or programs to attract tourists.

25. The Province should introduce an "Awards for Community Enterprise" program (described in Chapter V) to encourage communities to engage in beautification activities to make them more attractive to visitors.

26. The Department of Rural Development should provide an annual operating grant to the Saskatchewan Farm Vacations Association over a five-year period and provide the Association with funds to hire an employee for a two-year period.

27. Consideration should be given to the possibility of revising the liquor legislation to delete the room requirement for establishments that are primarily interested in operating licensed beverage rooms.

28. The Province should institute a classification system for regional parks to give higher priority to parks with high tourism potential.

29. Provincial policies are needed to protect and enhance the quality of the landscape of tourist areas if the full economic potential of tourism and outdoor recreation in rural Saskatchewan is to be realized. Tourists will not be attracted to areas afflicted by water pollution or where natural beauty has been marred as a result of inadequate land use planning and controls.

30. The Departments of Economic Development and Trade, Parks and Renewable Resources and Rural Development should establish an interdepartmental committee, chaired by a representative from the Department of Parks and Renewable Resources, to evaluate:

    - the potential for development of a new particle board facility in Saskatchewan in terms of current and projected markets,
    - the sources, quantities and suitability of wood available,
    - the economics of such a project, and
    - the desirability of providing some Crown forest land to potential tree farmers on a sale or long-term lease basis.

31. The Government of Saskatchewan should encourage and assist the further development of fish farming in Saskatchewan by:

    - providing research funds to determine the market for Saskatchewan rainbow trout for both local and export demand, determine the viability of an expanded fish farming industry, and find more effective solutions to such problems as algae control, aeration, muddy flavour, and harvest recovery,

    - providing more consultation and education on both extensive and intensive fish farming to commercial and private operators, and by

    - making suitable Crown waters available for intensive or extensive private fish farming.

32. The Province should implement a program to encourage - but not require - the formation of area development corporations and/or community development corporations in rural Saskatchewan, with legislative, financial and other assistance as outlined in this chapter.

33. The Province should establish an advisory group to assist with detailed program design and initial implementation, consisting of senior representatives from SARM, SUMA, UMAAS, RMAAS, Rural Development, Urban Affairs, Tourism and Small Business and the University of Saskatchewan.

34. The Province should guarantee up to $50,000 per annum for three years to each ADC formed, with an option for an additional two years of funding at the same level, dependent upon the success of each ADC.

35. The municipalities and other local groups involved in an ADC should be required to provide a minimum of 20 percent of the annual operating budget of the ADC, with the method of apportioning these costs to be determined locally.

36. During the fifth year of an ADC program, the Province should pay the costs of an independent evaluation of the ADC, and based on the results of that evaluation, fund each ADC on a differential basis, depending on its degree of success and self-sufficiency.

37. The Province should provide a one-time grant of up to $50,000 to each ADC formed to undertake an opportunity study for its area.

38. The Province should establish a small staff unit consisting of three professionals and one support person to have responsibility for the development corporation program, Rural Development Fund, Program of Awards for Community Enterprise and other related rural development programs.

39. The Province, in conjunction with municipal and development organizations and the private sector, should develop and implement a Program of Awards for Community Enterprise (PACE) to encourage community improvement and initiative.

40. The Province should establish an ongoing Rural Development Fund of $5 million to provide financial incentives to community development corporations with innovative ideas, and that the Fund be administered by a "blue ribbon" panel operating at arm's length from the Government.

41. Do not establish a new research and development agency, since Saskatchewan already has a wide range of provincial, federal, university and private organizations or institutions. However, give serious consideration to the establishment of research centres for major new research and development initiatives, such as for irrigation development or food processing, if it is decided existing research establishments are incapable of adequately handling what is deemed necessary.

42. The Province should provide additional financial support to existing agencies to undertake the kinds of research and development required, and develop additional research and development capacities as required.

43. The Government of Saskatchewan should establish a Research and Development Advisory Council responsible to the Saskatchewan Minister of Science and Technology to help determine research and development needs and priorities, evaluate research and development proposals and submissions, and monitor progress and effectiveness of programs or projects funded by the Government of Saskatchewan.

44. The Province should increase the annual provincial funding for research and development by $12,500,000 by 1990. This is required to effect the research and development embodied in the above recommendations, and to facilitate the economic and social development of Saskatchewan. To be effective, the additional funding should be provided for targeted or directed research in harmony with provincial needs.

45. The Government of Saskatchewan should enact and proclaim legislation to enable the various sectors of agriculture to collect check-off revenues from product sales to help fund agricultural research, and consider combining this with a program of matching grants to provide for co-operative research funding for some types of research.

46. The Province should encourage more research by private individuals and agencies by providing tax incentives and/or supporting research grants.

47. The Province should provide a new allocation of $2,000,000 in the Department of Rural Development for a capital construction account for 1985-86 to begin the upgrading of 1,500 km of heavy volume routes. The recommended allocation for ensuing years will be about $6,000,000 per year.

48. A joint research project should be undertaken as soon as possible by the Departments of Highways and Rural Development to determine the benefits and costs of rail to road rationalization to substantiate a request for a part of the Crow Benefit under The Western Transportation Act.

49. The Province should request that one-third of the Crow Benefit funds be provided to the prairie provinces for upgrading and/or construction of roads and highways which are required to replace rail branch lines which are abandoned.

50. In co-operation with rural municipalities and the Department of Highways, an immediate consultation process should be implemented to reclassify all roads in the province to reflect actual usage.

51. The Department of Rural Development should develop new cost-sharing formulas for reclassified routes, limiting designations to a maximum of four categories, and enhanced maintenance grants which accurately reflect the costs involved.

52. New rural municipal revenue sharing formulas should be developed to reflect the new cost sharing formulas indicated in No. 3 and to more accurately allow for other non-road related costs, as well as providing equalization to those municipalities with above average recognized costs.

53. The Province should study the feasibility of providing subsidy payments for debenture financing of large municipal road construction projects.

54. The Department of Rural Development should adopt minimum standards for construction of each new road designation with maximums flexible to allow for anticipated traffic requirements.

55. The Province should take the necessary steps to formulate and adopt provincial land use guidelines as provided for in The Planning and Development Act. In support of this recommendation, the Task Force suggests that:

    - Considerable public consultation has already taken place and it should be possible for the Province to draft a set of land use guidelines. Once prepared, a series of public forums should be considered with groups such as SARM, SUMA and the various interested sectors of the economy to ensure the proposed guidelines are in accord with the needs and wishes of the majority of property owners and potential users.

    - The Department of Rural Development should take a leadership role in co-ordinating and assembling interdepartmental policies from which overall guidelines will evolve. The majority of lands affected by this policy will fall within the boundaries of the 299 rural municipalities, making it vital to ensure that rural interests are fully considered.

    - A Cabinet committee chaired by the Minister of Rural Development should be established to oversee the development and implementation of provincial land use guidelines. It is vital to the success of this proposal that it receive a firm and ongoing commitment at the Cabinet level. Development of such guidelines will be a complex task, and anything less than full support from all departments, Crown corporations and agencies will almost certainly jeopardize the outcome.

- The guidelines developed should clearly outline the public interests which the Crown must uphold on behalf of its corporations, departments and agencies, and which could be protected by adequate land use guidelines.

56. Once clearly defined land use guidelines have been adopted, the Province should re-evaluate the necessity for retaining the vast acreages of Crown land and related property now held.

57. The Province should proceed immediately to alienate as much agricultural and forest land as possible to encourage increased productivity and development by entrepreneurs.

58. The Saskatchewan Farm Ownership Act should be amended by adding a new section to allow non-agricultural corporations which are wholly owned by Saskatchewan residents to acquire aggregate land holdings not exceeding 160 acres or one quarter section, whichever is greater. This would remove an important impediment to some types of economic development needed in rural Saskatchewan.

59. The Government of Saskatchewan should urge the CWB to restructure the quota system to discourage summerfallow practices in Saskatchewan and encourage alternate uses for soils subject to erosion and degradation.

60. The Government of Saskatchewan should work with the Government of Canada to develop a soil conservation program to return marginally productive soils to forage crops.

61. The Government of Saskatchewan, in its agricultural policies and programs and in its relationships with lending agencies, should recognize that part-time farming and off-farm income are positive and not negative economic factors in the process of establishing new farm units.

62. Saskatchewan should encourage the Taxation Division of Revenue Canada to develop a registered farm ownership plan to encourage investment in farm property.

63. In its water resource planning, the Province should give greater consideration to multipurpose schemes which will assist in rural economic development, both on farms and in small urban centres. This should be a high priority for both the short and long term.

    Contracts or agreements by the Province to deliver water to certain areas or communities should avoid any terms or conditions which may impede or restrict developments in neighbouring communities.

    This recommendation should include further effort and attention to the need for additional water sources in rural areas to provide backup supplies during prolonged droughts.

64. In addition to the existing assistance programs for drainage projects by organized groups, the provincial government should assume responsibility for the improvement and maintenance of the major waterways that must receive the drainage.

65. In the process of investigating the feasibility of all drainage projects, greater emphasis should be placed on alternatives for practising water conservation (such as snow management, strip or contour farming, cultural practices, and small supplemental irrigation projects).

66. More research and development should be undertaken regarding low-cost systems for treating brackish water so that it can be used for domestic or stock watering purposes as well as for small urban communities. In particular, research should be directed to the development of low-cost modular systems for use in Saskatchewan. Research should also be undertaken to determine the effect of summerfallow practices on the downward movement of nitrogen.

67. Since water is a major, precious resource in Saskatchewan, the Province should undertake more study of how to develop and use water to greater advantage in economic development, and develop policies and programs accordingly.

68. The Province, in conjunction with the federal government, should prepare updated maps of geology and groundwater resources.

69. The Government of Saskatchewan should consider:

    - providing support for the development of non-government organizations in rural areas,
    - the development of alternatives which would alleviate the blockage of hospital beds by long-term care, elderly patients,
    - providing incentives for medical practitioners to locate and remain in rural Saskatchewan, and
    - developing a program to provide more adequate facilities for level IV health care in rural areas.

70. High schools and universities should include more business management in their curricula.

71. The Government of Saskatchewan should consider decentralizing more of its services to rural areas.

72. The Government of Saskatchewan should design new programs which recognize that maintaining a healthy rural way of life and a strong rural economy is basic to the province's strength. This may require that rural areas be provided with levels of assistance beyond that provided to cities.

73. Sask Tel should consider the feasibility of offering a revised version of DIALPAC to nonresidential subscribers in rural Saskatchewan as defined by the Task Force. This should assist the development of industrial and commercial activities in rural areas.

74. Emphasis should be placed on the use of low power television in less populous and remote communities for extension of services with Cancom programming.

75. Area and Community Development Corporations should be given serious consideration as implementation vehicles for the LPTV option.

76. Sask Tel should be encouraged to step up its program of cabling small communities and it should actively promote the use of cable for distribution of extended television services in these communities.

77. The Department of Tourism and Small Business should actively encourage and support private investment by individuals and associations within small communities to establish facilities expanding television services in these communities.

78. The Government of Saskatchewan should provide leadership in developing a more adequate program of farm management information for agriculture using the modern communication and computer data base capabilities now available.

79. Provincial programs should be developed to encourage more tree plantings for both soil protection and for landscape improvement.

80. A comprehensive provincial program should be established for the effective eradication and future prevention of rat infestations in Saskatchewan.

81. The Department of Rural Development should develop a funding program to encourage an increased use of district planning commissions.

82. The Province should work with SUMA and SARM to develop and present a case for increased federal financial assistance to small urban and rural municipalities for such things as basic infrastructure and economic development.

83. The Government of Saskatchewan should provide financial assistance to rural and small urban (with population of less than 5,000) municipalities to encourage greater intermunicipal co-operation for the provision of such services as local government office facilities, fire protection, police protection and road building and maintenance equipment.

84. The Province should give consideration to providing municipalities with the option of using variable mill rates to provide greater development flexibility. This should not be viewed as an approach to overcoming basic assessment deficiencies.

85. The Government of Saskatchewan should place a high priority on the development and implementation of a new rural assessment system. The primary objective of such a new system should be to remove the current inequities which are a definite deterrent to economic and social development in rural Saskatchewan.

86. In a new system of assessment, consideration should be given to assessing and taxing all principal rural residences, regardless of ownership classification. It is recommended that this also be carefully considered by the LGFC.

87. The Minister of Rural Development should establish a Rural Law Review Committee to help rewrite, update and consolidate statutes relating to Saskatchewan's rural municipalities, in consultation with SARM and RMAA.

88. The mandate of the Department of Rural Development should be expanded through the establishment of a Community Development Branch responsible for the formation of Area Development Corporations and Community Development Corporations.

89. The Department of Rural Development should be expanded to contain a policy research and program development and co-ordination unit.

90. An interdepartmental committee should be established to consider new, more efficient methods of delivery of provincial services to small urban and rural municipalities and to recommend possible departmental restructuring. This study should include consideration of the merits of reorganizing the Department of Urban Affairs so that it would deal only with the 12 cities of the province, and transferring the policies and programs related to the urban centres of less than city status to a newly restructured Department of Rural Development which would also deal with the 299 rural municipalities. The Task Force recognizes the controversial nature of this recommendation, and suggests the committee should include members from Rural Development and Urban Affairs, together with representatives from SARM, SUMA, the Rural Municipal Administrators Association, the Urban Municipal Administrators' Association and at least two members from the public at large, to ensure adequate public input into the process.

91. The Department of Rural Development should provide engineering services to all towns and villages, in a manner similar to the service provision which existed prior to 1979.

92. New provincial programs for rural Saskatchewan should encourage intermunicipal co-operation wherever possible, but not to the exclusion of those units which wish to remain autonomous.